University of Alberta

Development of a Community-Based HIV/AIDS Prevention Program for Urban Aboriginal Youth

by

Sonia Isaac-Mann

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the

requirements for the degree of *Master of Science*

Department of *Medical Sciences - Public Health Sciences*

Edmonton, Alberta

Spring 2004

Library and Archives Canada

Published Heritage Branch

395 Wellington Street
Ottawa ON K1A 0N4
Canada

Bibliothèque et Archives Canada

Direction du Patrimoine de l'édition

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence
ISBN: 0-612-96492-2
Our file Notre référence
ISBN: 0-612-96492-2

The author has granted a non-exclusive license allowing the Library and Archives Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou aturement reproduits sans son autorisation.

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.

Canada

ABSTRACT

Using a Community-based research approach, this thesis examined the HIV prevention needs of Urban Aboriginal youth in Edmonton, Alberta. A questionnaire was used to determine demographic information, information about HIV knowledge, and risk taking behaviours along with opinions about HIV prevention programming. Ten interviews were conducted to obtain information about HIV prevention specific for urban Aboriginal youth.

The results showed that youth in this study were engaging in high risk behaviours such as alcohol and drug use, unprotected sex (46.6% said they didn't use a condom because they were drunk/stoned/high), numerous sexual partners (88.1% said they had more than one), sex trade work (10.2%), increased sexual activities, needle use (9.3% IDU), and needle sharing (8.5% IDU). The results identified common themes, which include: culturally appropriate prevention, community-based programs, accurate HIV/AIDS information, and access to services. Recommendations for program development based on the thoughts of the youth are presented.

DEDICATION

This research is dedicated to Roland Morrison. He touched my life in such a way that changed my path. His journey with HIV and AIDS was one that taught me that education and prevention for our Aboriginal people was of vital importance. Without him, I would not have travelled on this path. Sincere thanks are sent to you and I hope that you are at peace.

ACKNOWLEDGEMENTS

I would like to acknowledge several people who have helped me throughout the research process. To my family, especially to my mother, who have supported me throughout my educational career. I would also like to thank my supervisors, Dr. Cam Wild and Dr. Douglas Wilson for their support, advice and guidance.

I am grateful and honoured to have been a scholarship recipient of the Aboriginal Capacity-Building Program for Community-Based Research. I am thankful for their financial support throughout the research process.

I would also like to acknowledge HIV Edmonton for their involvement in the research project. Without them, this process would not have been possible. Also, thanks to all of the organizations who participated in the project. I would like to send out much thanks to those Aboriginal youth who graciously participated in the research, without you none of this would have come to be.

Ta'n tlipgije'g sipu pemitg mjijaqamijnew melgignatew. Welalin!
As Long as the water flows, our spirit will be strong. Thank-you!

TABLE OF CONTENTS

CHAPTER 1: Background and Literature Review..... 1
Introduction..... 1

HIV/AIDS Epidemic..... 2
Canada statistics..... 2
Canadian youth..... 6
Aboriginal Canadians..... 10

Literature Search: Prevention Programs for HIV/AIDS..... 14
Locating Studies..... 14
Inclusion and Exclusion Criteria..... 16

Results of Literature Review..... 18
HIV Prevention among Adolescents..... 18
Aboriginal HIV Prevention..... 18
Urban/Street Youth/Inner-City HIV Programs..... 19
School-Based HIV Prevention..... 20
Health Promotion and Theoretical Perspectives..... 20
Health Promotion..... 20
Theoretical Perspectives..... 23
Approaches, Models, and Theories Emphasizing the Individual Level 24
Cognitive and Decision-Making Theories..... 24
Health Belief Model..... 24
Theory of Reasoned Action..... 25
Learning Theories..... 26
Social Cognitive Theory..... 26
Self-Efficacy Theory..... 26
AIDS Risk Reduction Model..... 27
Transtheoretical Model of Behaviour Change..... 27
Approaches, Models, and Theories Emphasizing the Community Level 28
The Theory of Diffusion of Innovations..... 28
Social Marketing Theory..... 28
Theories of Community Organization..... 30
Social Planning..... 30
Social Action Theory..... 30
Emergent Change Methodology..... 30
Limitations of Theories..... 31

The Research Question..... 31
Qualitative Research..... 32
Participatory Action Research..... 33
Community-Based Research..... 34
The Research Question..... 35

CHAPTER 2: Design and Methodology 37
Introduction 37

Study Setting 37

Participatory Process 38

Procedure 39

Data Collection 40
Survey Instrument 44
Qualitative Interviews 44

CHAPTER 3: Analyses and Results 46
Survey Data: Quantitative Analyses 46
Description of Survey Sample 46
HIV Background Information 48
HIV Knowledge 49
Sexual Risk Behaviour 51
Condom Use 52
Needle Use 53
Risk Behaviour Scale 54
Drug Use in the Last Month 54
Sexual Behaviour in the Last Month 55
Relationships Among Variables 57
Correlational Analysis 57
Logistic Regression Analysis 57
Open-Ended Questions 58
Interviews: Qualitative Analyses 60
HIV: A Concern for Aboriginal Youth? 60
Concern for Aboriginal Youth 60
Important issues 61
Risks 61
Drinking and drugs 62
Strategies to reduce the risk 62
HIV Programming: Who/What/When/Where/How? 64
Youth involvement 64
The role of culture 64
Who? 66
Where and how? 67

CHAPTER 4: Discussion and Conclusions 70
Overview of Findings 70
Questionnaires 70
Interviews 73
The role of culture 75

Discussion..... 78
Recommendations for Program Development..... 80
Implications and Future Research..... 86
Limitations..... 86
Conclusions..... 87

Endnotes..... 90

References..... 97

Appendices
Appendix 1 - Medline Search Strategy..... 105
Appendix 2 - OvidHealthStar Search Strategy..... 106
Appendix 3 - EMBASE Search Strategy..... 107
Appendix 4 - PscycINFO Search Strategy..... 108
Appendix 5 - Summary of Literature Review..... 109
Appendix 6 - Stakeholder Package..... 129
Appendix 7 - Questionnaire Package..... 136
Appendix 8 - Interview Package..... 148
Appendix 9 - Responses to open-ended questions of survey..... 154
Appendix 10 - Curriculum Vitae..... 159

LIST OF TABLES

Table

1.1 Distribution of Exposure Categories Among Positive HIV Tests Reported between January 1, 1999-December 31, 2000 for Individuals Aged 10-29 Years in Canada..... 7

1.2 Number of reported AIDS Cases with Associated Exposure Categories (%) for Individuals 10-24 years of age in Canada up to June 30, 2002.... 8

1.3 Frequency of reported sexual intercourse among youths surveyed in the Canada Youth and AIDS Study by age and sex..... 9

1.4 Gender, Age and Exposure Categories among Reported HIV Tests, Aboriginal VS Non-Aboriginal Persons in Provinces with Reported Ethnicity, 1998-June 30, 2002..... 11

1.5 Percentage of Known Exposure Categories for Aboriginal Male AIDS Case Reports up to December 31, 2000 compared to those up to December 31, 1999 and December 31, 1998..... 12

1.6 Percentage of Known Exposure Categories for Aboriginal Female AIDS Case Reports up to Dec. 31, 2000 compared to those up to Dec. 31, 1999 and Dec. 31, 1998..... 12

1.8 Exclusion and Inclusion Criteria for Articles..... 16

1.9 Summary of articles for HIV prevention in Adolescents, HIV prevention in Aboriginal peoples, school-based HIV programs, and Urban/street-youth and inner-city HIV programs..... 110

1.10 Approaches, Models, and Theories Emphasizing the Individual Level... 23
1.11 Characteristics of Qualitative Research..... 32
2.1 Study Sites and Data Collection Methods..... 43
3.1 Sociodemographic Characteristics of the Sample..... 46
3.2 Information and Test Status..... 48
3.3 HIV Knowledge..... 49
3.4 Sex-Related Risk Behaviours..... 51
3.5 Reasons for not Using Condoms..... 52
3.6 Needle-Related Risk Behaviours..... 53
3.7 Drug Use in the Last Month..... 54
3.8 Sexual Behaviour in the Last Month..... 56
3.9 Correlations Between Predictor Variables..... 57
3.10 Logistic Regression Predicting HIV Testing..... 58
4.1 Comparison between Traditional and Western Medicine..... 77

LIST OF FIGURES

Figure		
1.1	MSM, IDU and Heterosexual Contact Exposure Categories as a Percentage of Positive HIV Reports, Canada.....	4
1.2	Proportion of HIV Test Reports by Gender Canada.....	4
1.3	AIDS Cases Reported to Health Canada by Year of Diagnosis.....	5
1.4a	Annual number and percentage of adult AIDS attributed to MSM.....	5
1.4b	Annual proportion of positive HIV test reports for MSM.....	5
1.4c	Annual proportion of adult AIDS cases attributed to IDU.....	5
1.4d	Annual proportion of positive HIV test reports for IDU.....	5
1.5	Proportion of Females among reported Adult positive HIV tests and AIDS Cases by Year of Diagnosis, Canada, 1985-2002.....	6
1.6	Percentage of Positive HIV Test Reports by Age and Year, Canada.....	7
1.7	Number and Percentage of Aboriginal AIDS Reports, Canada.....	12
1.7	Comparison of Risk of HIV Acquisition for Aboriginal Female, Non-Aboriginal Female, Aboriginal Male and Non-Aboriginal Male in Northern Alberta.....	13
1.9	A Framework for Health Promotion.....	21
4.1	Medicine Wheel.....	76
4.2	Medicine Wheel Stages of HIV Prevention.....	84

LIST OF ABBREVIATIONS and SYMBOLS

HIV – Human Immunodeficiencey Virus

AIDS – Acquired Immunodeficiency Symdrome

IDU – Intravenous Drug Use

MSM – Men who have Sex with Men

LCDC – Laboratory Centre for Disease Control

CYAS – Canada Youth and AIDS Study

WHO – World Health Organization

SOC – Stages of Change

PAR – Participatory Action Research

CBR – Community-Based Research

M – Mean

s.d. – Standard Deviation

r – Correlation

p – Significance Level

OR – Odds Ratio

UMAYCI – Urban Multipurpose Aboriginal Youth Centres Initiative

NAHO – National Aboriginal Health Organization

CIHR – Canadian Institute for Health Research

AFN – Assembly of First Nations

CHAPTER 1: Background and Literature Review

Introduction

It is widely known that, in Canada, many Aboriginal peoples move from reservations or small rural communities to live in larger cities. Aboriginal peoples often comprise a large proportion of the minority groups in large urban areas. HIV/AIDS has not left Aboriginal peoples untouched. They are at great risk of transmitting HIV due to community members engaging in high-risk behaviour. In this context, there is cause for concern that youth within the Aboriginal population are at increased risk of HIV infection. Involvement in Intravenous Drug Use (IDU) along with participation in risky sexual behaviours (e.g., sex trade work, men who have sex with men (MSM), engaging in unprotected sex and having multiple sexual partners) can put Aboriginal youth at high-risk for acquiring HIV.

HIV infection rates have generally been decreasing in the general Canadian population, but this is not the case for Aboriginal peoples. During a four-year period from 1996 to 1999, HIV infection among Aboriginal populations had increased by 91%.[1] There is evidence that youth are increasingly at risk. The average age of HIV infection has dropped from 32 years old to 23 years old.[2] Over half of the Aboriginal population is near 23 years of age (53% under age 24), which is of serious concern given that the average age of HIV infection is 23 years old.[3]

In some provinces, Native people account for as much as 30% of newly diagnosed cases of HIV.[4] In Alberta, Aboriginal people represent 5% of the population but a disproportionately large percentage (26%) of newly diagnosed HIV cases.[5] Obviously, with the average age of Aboriginal people being so young, action must be taken to protect

the health of Aboriginal youth with respect to HIV/AIDS. Prevention strategies must be developed in order to reduce the rate of HIV infection among Aboriginal peoples before the epidemic becomes one that, in essence, could destroy the Indigenous peoples of Canada.

HIV/AIDS Epidemic

HIV stands for the Human Immunodeficiency Virus. This is the virus that causes AIDS (Acquired Immunodeficiency Syndrome). The virus works by attacking the body's immune system. In essence, HIV leaves one's body defenceless against the spread of infection.[6] The virus is spread through the transfer of bodily fluids (such as blood, semen, or vaginal fluids) from someone who is infected. The transfer of bodily fluids can occur during sexual intercourse, sharing needles during intravenous drug use (IDU) and via tainted blood during transfusions. A pregnant woman who is HIV/AIDS positive may also infect her child at birth and also during breastfeeding.[7]

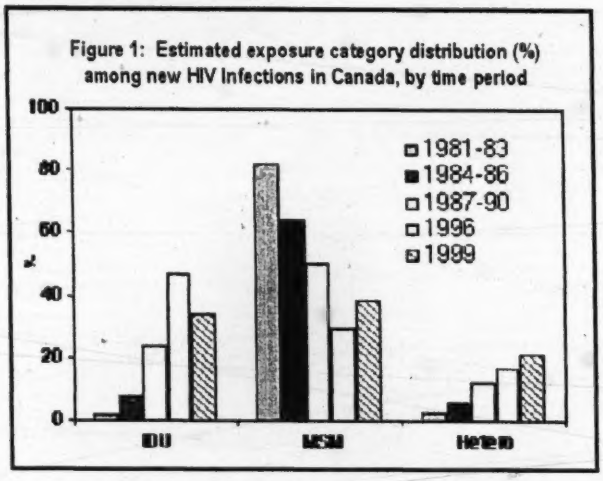
A review of current HIV and AIDS data is necessary to shed some light on the severity of the epidemic among the Canadian population as a whole, Canadian youth, and Aboriginal Peoples of Canada. Health Canada produces HIV/AIDS Epi Updates through the Centre for Infectious Disease Prevention and Control. Health Canada also produces surveillance reports on HIV/AIDS through the same department. These reports provide background statistical data to construct a snapshot view of the current HIV/AIDS epidemic in Canada.

Canadian statistics. HIV and AIDS have affected Canada since the early 1980s. Data from the beginning of the epidemic in November 1985 (when reporting began by Health Canada) to June 30, 2002 indicated that there were 51, 470 HIV positive tests and

18, 336 AIDS cases.[8] These numbers are underestimates the total number of HIV cases in Canada, since it estimated that up to one-third of HIV positive cases may not be diagnosed.[9] The most current data from the Canadian Surveillance reports (up to June 2003) indicated that the number of HIV positive tests was 53,887 and the number of AIDS cases was 18,934.[10] According to Health Canada[11], the number of positive HIV tests has been on the decline in the general Canadian population. For example, compared to 1995, there were 25.4% fewer HIV positive cases by the end of 1999. Although these statistics suggest that HIV rates are decreasing, it is important to keep in mind that this may be due to delays in reporting and under-reporting.

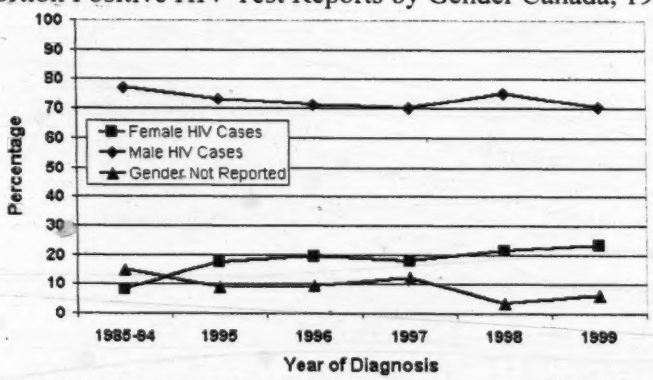
The HIV epidemic has traditionally been considered a disease that primarily affected men who have sex with men (MSM) or one that involved tainted blood products. The current situation is shifting from one that was predominantly affecting MSM to mostly affecting IDU, MSM and women. Figure 1.1 identifies exposure categories for HIV positive groups in Canada. In fact, the HIV positive cases attributed to MSM from 1997-99 dropped to 37% from 74.7% between 1985-94. The number of HIV positive cases attributed to IDU from 1997-99 increased to 30% from 8.9% between 1985-94. Figure 1.2 identifies the percentage of HIV positive cases among men and women.[12-13] The number of HIV positive cases in women increased to 24.8% in 1999 from 9.8% between 1985-94.

Figure 1.1. MSM, IDU and Heterosexual Contact Exposure Categories as a Percentage of Positive HIV Reports, Canada, 1981-1999



Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, April 2003.

Figure 1.2. Proportion Positive HIV Test Reports by Gender Canada, 1985-1999

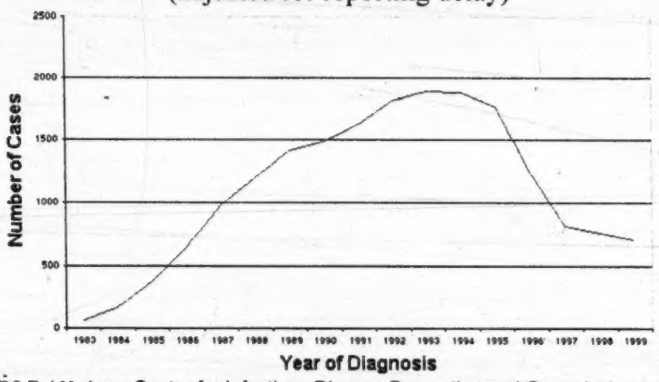


Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, April 2000.

Health Canada identifies that the total number of AIDS cases in Canada by the end of June 2003 was 18,934. As with the number of HIV positive cases, the number of AIDS cases has been slowly declining. Figure 1.3 shows the number of AIDS cases reported to the LCDC by year (1983-1999) of Diagnosis. Again, this may be due to delays in reporting and under-reporting. This may also be attributed to better treatment to prevent the onset of AIDS. MSM still represent the majority of AIDS cases. However, this has been on the decline since 1989 when MSM represented 79.9% of all adult cases

to 40.9% by 1999. The number of AIDS cases due to IDU went from 2.5% in 1989 to 20.7% by the end of 1999.[14] Figure 1.4 (a-d) shows the percentage of MSM and IDU reported AIDS cases and positive HIV tests in Canada.

Figure 1.3. AIDS Cases Reported to Health Canada by Year of Diagnosis, 1983-1999 (adjusted for reporting delay)



Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, April 2000.

Figure 1.4a. Annual number and percentage of adult AIDS attributed to MSM (1986-2001)

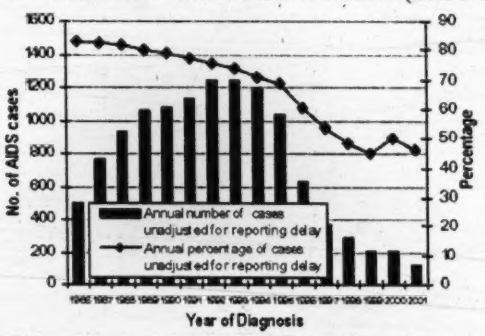

No. of AIDS cases
Percentage
Annual number of cases unadjusted for reporting delay
Annual percentage of cases unadjusted for reporting delay
Year of Diagnosis

Figure 1.4b. Annual proportion positive HIV test reports for MSM (1985-2001)

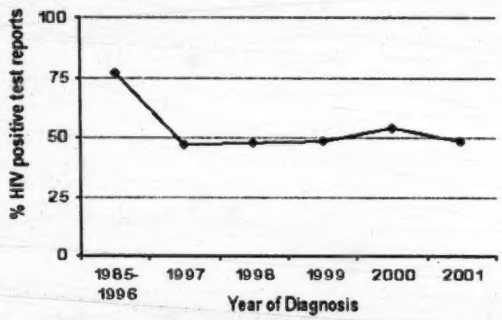


Figure 1.4c. Annual proportion of Adult AIDS cases attributed to IDU (1991-2001)

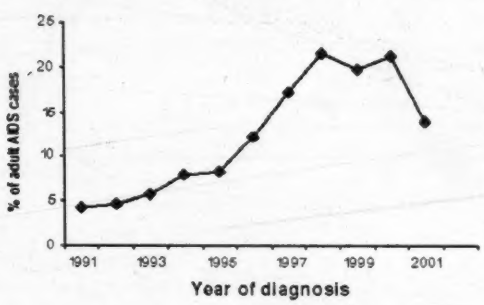
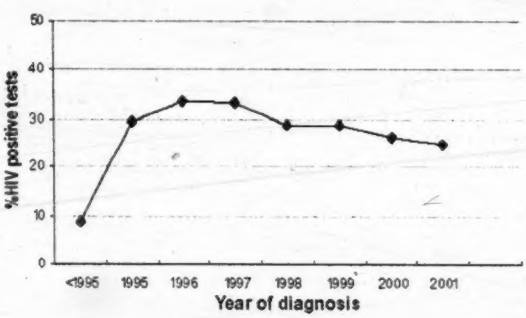


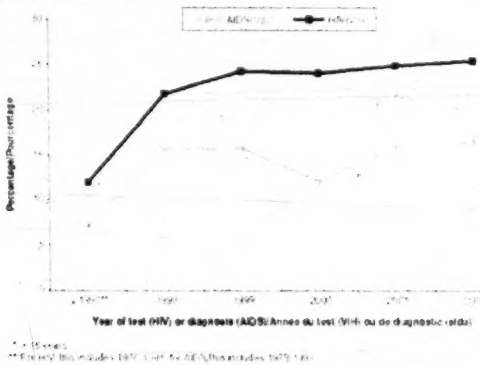
Figure 1.4d. Annual proportion of Adult positive HIV test reports, IDU(1996-2001)



Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, April 2003.

The number of HIV and AIDS cases among women has been increasing over the past seventeen years (Figure 1.5). In 2001, women accounted for 44.5% of positive HIV tests (aged 15 – 29). Women now represent 16% of all AIDS cases up to the end of June 2002.[15]

Figure 1.5. Proportion of Females among reported Adult positive HIV tests and AIDS Cases by Year of Diagnosis, Canada, 1985-2002



Source: Surveillance Report to June 30 2003, Centre for Infectious Disease Prevention and Control, Health Canada, Nov 2003.

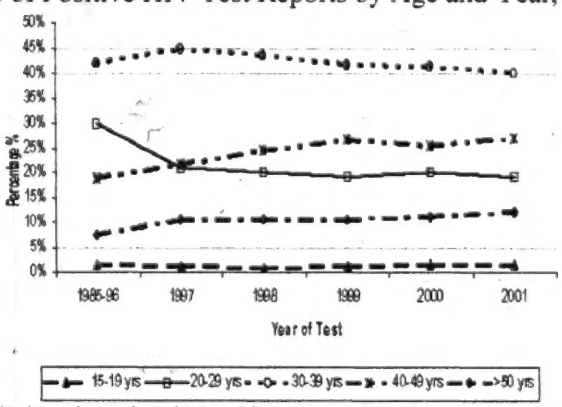
According to the data presented above, HIV prevalence is shifting from predominantly affecting MSM to affecting IDU and women. Data also show that the HIV/AIDS epidemic is decreasing in prevalence among the general Canadian population. This information does not specifically present the situation that is affecting Canadian youth or the Aboriginal population. Youth are at a stage where social influences are affecting their lives. These social influences may be manifesting themselves in forms such as peer pressure, acceptance or survival. In order to understand the effects of HIV/AIDS on youth, an examination of the statistics among this group is necessary.

Canadian youth. Data show that youth at highest risk for HIV infection are street involved youth, youth involved with IDU (a study of Montreal street youth, indicates that 47.3% of youth had injected drugs)[16], and young gay men. Data gathered about risk behaviour also showed that youth are at increased risk for HIV transmission. Youth are

having sex earlier than in the past, they often have multiple sexual partners, and have unprotected sex. Among youth aged 15 – 19 years old in 1994, 51% of females and 29% of males indicated never or only sometimes using a condom. For youth aged 20 –24 years in the same year, 53% of females and 44% of males reported never or only sometimes using a condom.[17]

By the end of June 2002, 684 HIV positive tests were among youth aged 15-19 years and 12, 595 were among youth aged 20-29 years. Youth aged 15-19 years represented 1.5% and youth aged 20-29 represented 26.9% of the total number of HIV positive cases by the end of the year 2000. Figure 1.6 identifies the percentage of HIV positive reports by age and year. Among these age groups, the mode of infection is varied. Table 1.1 shows the modes of transmission between January 1, 1999 and December 31, 2000. MSM, IDU, and heterosexual contact accounted for most of the cases for both groups.[18]

Figure 1.6. Percentage of Positive HIV Test Reports by Age and Year, Can, 1985-2001



Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, April 2003.

Table 1.1

Distribution of Exposure Categories Among Positive HIV Tests Reported between January 1, 1999-December 31, 2000 for Individuals Aged 10-29 Years in Canada

Category	10-19 years of age	20-29 years of age
Associated	41% MSM	43% MSM

Exposure Categories*	41% IDU 12% Heterosexual Contact/Endemic 6% Blood & Blood Products	33% IDU 20% Heterosexual Contact 2% MSM/IDU 2% Blood & Blood Products

* Percentages based on the total number of cases minus those reports for which exposure category was unknown, "other," or "not identified."

Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, May 2001

Of the 18,336 AIDS cases reported by the end of June 2002, 627 (3.4%) were among youth aged between 10 and 24 years old. Knowing that the onset of AIDS is roughly 10 years, many of the new AIDS cases would have been infected with HIV during their youth. Table 1.2 shows the mode of infection by age up to June 30, 2002.[19] This data implies that for youth aged 10-19 years old, involuntary exposure to HIV is the main mode of transmission. However, for youth aged 20-24 years old, risky sexual behaviour and IDU are main modes of transmission. This data may be deceiving because it does not breakdown the 10-19 year old group into separate age categories. This may be useful in determining the actual modes of transmission for youth aged 15-19 years old.

Table 1.2

Number of reported AIDS Cases with Associated Exposure Categories (%) for Individuals 10-24 years of age in Canada up to June 30, 2002

Category	10-19 years of age	20-24 years of age
Associated Exposure Categories*	62% Blood & Blood Products 10% MSM 7% Heterosexual Contact/Endemic 6% IDU 6% MSM/IDU 1% Other	48% MSM 20% Heterosexual Contact/Endemic 11% MSM/IDU 10% IDU 5% Blood & Blood Products

* Percentages based on the total number of cases minus those reports which exposure category was unknown or "not identified."

Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, April 2003.

In 1988, the Canada Youth and AIDS study (CYAS) was conducted. Youth, aged 11 to 23 years, from across Canada were surveyed to determine their sexual practices. Table 1.3 identifies that adolescents and youth have had sexual intercourse with at least

one partner and those that have had sexual intercourse with five or more partners. This identifies that the problem of risk exposure is quite high among youth.[20]

Table 1.3

Frequency of reported sexual intercourse among youths surveyed in the Canada Youth and AIDS Study by age and sex

			Frequency of sexual Intercourse; Sex, %			
			At least once		with five or more partners	
Group	No. of youths	Age, *yr	Male	Female	Male	Female
Grade 7 students	9925	12 – 13	NA	NA	NA	NA
Grade 9 students	9860	14 – 15	31	21	NA~	NA~
Grade 11 students	9617	16 – 17	46	44	14	8
College/University	6911	18 – 20	76	73	45	29
School dropouts	1033	17 – 19	89	84	58	41
Street youths	656	16 – 19	95	93	69	60

* Of the majority of people in each group.
NA = not asked
~ Seven percent of the males and 6% of the females in grade 9 reported sexual intercourse often.

Source: Bowie et al., Implications of the Canada Youth and AIDS Study for health care providers. *Canadian Medical Association Journal.* Volume 143. No. 8. 1990.

The CYAS found that knowledge about STDs was poor but that knowledge of AIDS was slightly better, although, having this knowledge did not seem to alter risky sexual behaviour. Of the group studied, most of the youth identified were not using preventive measures. When asked, only 1/3 of the male school dropouts and college/university students said they "always" or "most of the time" used condoms. Only1/4 of female dropouts and only 1/5 of female college/university students reported "always using" or "most of the time." The data gathered from the CYAS determined that Canadian youth are at a high risk for HIV infection.[21]

A further indication that youth are at risk for HIV transmission is the shift in median age at onset of HIV infection from 32 years to 23 years of age.[22] It is evident that with this shift, more HIV prevention measures need to be undertaken to reduce the

transmission of HIV among youth.

According to these data, Canadian youth who participate in risky behaviour are at high risk for HIV transmission. The onset of AIDS is roughly 10 years therefore, many of the new AIDS cases would have transmitted HIV during their youth. One of the largest indicators that youth are at high risk of HIV transmission is the age of onset. The age of onset has shifted from one that was at 32 years of age to 23 years of age. This is of great concern, especially for the Aboriginal population where the average age is 23 years.

Aboriginal Canadians. The term "Aboriginal" includes Metis, Inuit, First Nations and non-status Indians. These are groups of people that share similar indigenous heritage but they differ in terms of their entitlements and jurisdiction.[23] Of the reported cases up to the end of June 2002, 688 HIV positive tests and 459 AIDS cases were reported as Aboriginal people. The proportions of HIV positive tests among those <30 years old (27.9% vs. 16.9%), female (45.3% vs. 16.8%) or due to IDU (60.6% vs. 34.7%) are greater when compared to non-Aboriginal cases reported up to June 30, 2002.[24]

An estimated 2,740 Aboriginal people were living with HIV by the end of 1999 compared to only 1,430 estimated HIV positive in 1996 (a 91% increase). Aboriginal people comprise only 2.8% of Canada's total population but they represented 5.5% of all prevalent infections and 8.8% of all new infections in 1999.[25] Aboriginal people are over-represented in the number of new HIV positive cases. In 1998, Aboriginal people represented 19.2% of new cases, averaging 24% in 1999-2001, and 26.5% in the first six months of 2002. There are a higher proportion of HIV positive cases among Aboriginal females, Aboriginal people aged 20-29 years and more cases due to IDU when compared

to non-Aboriginal people in the same group.[26] The fact that the average age of onset has dropped from 32 to 23 is of major concern for Aboriginal Peoples. In 1996, seventy percent of Aboriginal people living in Canada were under age 34.[27] Almost half of the Aboriginal population is near 23 years of age (53% under age 24), which is of serious concern given that the average age of HIV infection is 23 years old.[28] Table 1.4 compares Aboriginal and non-Aboriginal people by gender, age and exposure category.

Table 1.4

Gender, Age and Exposure Categories among Reported HIV Tests, Aboriginal VS Non-Aboriginal Persons in Provinces with Reported Ethnicity**, 1998-June 30, 2002

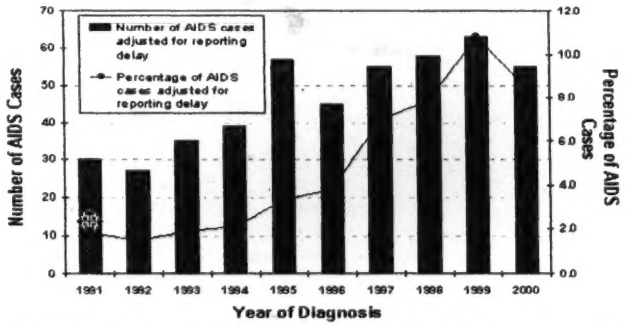
	Aboriginal	Non-Aboriginal
Gender	n = 688	n = 2267
Male	54.7%	80.1%
Female	45.3%	19.9%
Age	n = 691	n = 2283
20-29	27.9%	19.6%
30-39	39.5%	39.7%
40-49	22.3%	26.1%
Exposure Category	n = 677	n = 2166
MSM	7.7%	35.7%
IDU	60.6%	30.8%
Heterosexual	26.4%	28.8%

** BC, YK, AB, MB, SK, PEI, NFLD and Labrador

Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, April 2003.

Since the early 1990s, the number of AIDS cases has been increasing among Aboriginal peoples. The annual percentage of AIDS cases among Aboriginal people had increased to 10.8% in 1999, decreased to 7.9% in 2000 and decreased to 5.3% in 2001 from 2.0% in 1993. However, Aboriginal people accounted for 14.1% of new AIDS cases in the first six months of 2002.[29] Figure 1.7 identifies the number and percentage of AIDS cases among Aboriginal people between 1991 and 2000.

Figure 1.7. Number and Percentage of Aboriginal AIDS Reports, Canada, 1991-2000



Source: HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control, Health Canada, May 2000.

Among the 459 Aboriginal AIDS cases by the end of June 2002, 353 were male and 106 were female. Table 1.5 identifies the known exposure categories for Aboriginal males and Table 1.6 identifies the known exposure categories for Aboriginal females.

Table 1.5

Percentage of Known Exposure Categories for Aboriginal Male AIDS Case Reports up to December 31, 2000 compared to those up to December 31, 1999 and December 31, 1998.

Exposure Category	2000	1999	1998
MSM	49.4	52.4	57.4
IDU	26.1	24.0	19.4
MSM/IDU	12.9	13.2	12.9
Heterosexual Contact	9.4	5.5	4.9
Transfusion	0.6	0.7	0.8
Parinatal Transmission	1.6	1.4	1.5

Source: Bureau of HIV/AIDS, STD and TB, Centre for Infectious Disease Prevention and Control, Health Canada, May 2001, April 2000 and May 1999.

Table 1.6

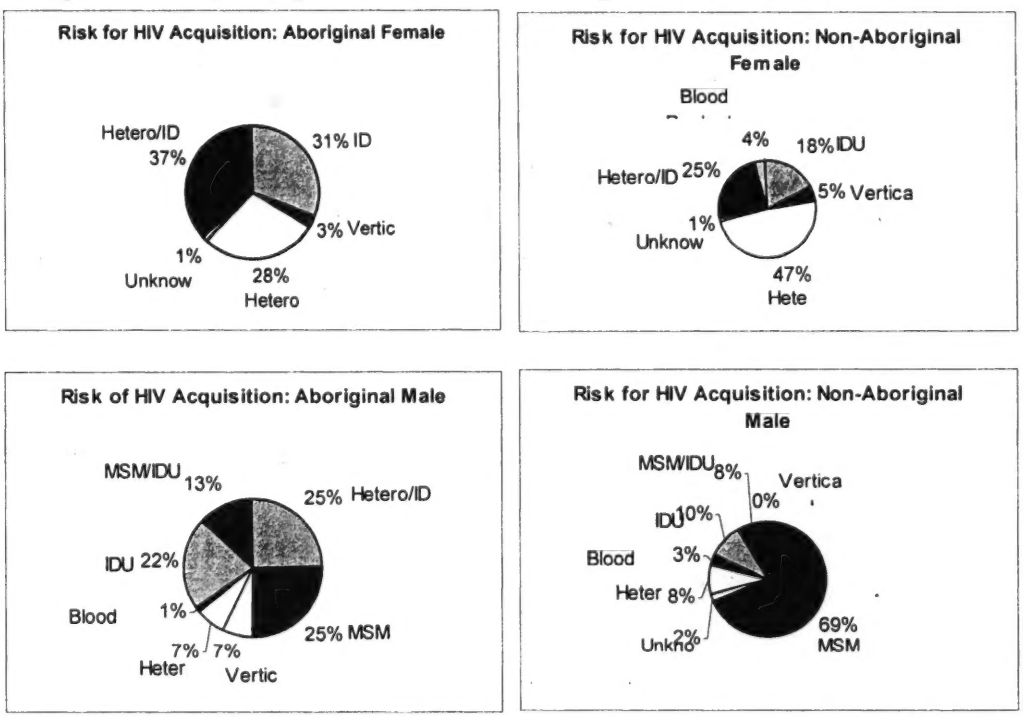
Percentage of Known Exposure Categories for Aboriginal Female AIDS Case Reports up to Dec. 31, 2000 compared to those up to Dec. 31, 1999 and Dec. 31, 1998.

Exposure Category	2000	1999	1998
IDU	64.7	58.5	53.4
Heterosexual Contact	30.7	24.4	29.3
Transfusion	2.3	2.4	6.9
Perinatal Transmission	2.3	2.4	5.2

Aboriginal HIV and AIDS data are incomplete due to delays in reporting, misclassification of ethnic status and the lack of ethnic information in the current surveillance data of the epidemic. In the year 2000, 75% of reported HIV positive and 16% of AIDS cases had no ethnic data. Thus, the actual number of Aboriginal people living with HIV and AIDS is likely to be much higher.[30]

The data that are available does suggest that HIV and AIDS in Aboriginal people are increasing. Figure 1.8 identifies the risk for Aboriginal people vs non-Aboriginal people in Northern Alberta for HIV. Aboriginal people are more likely to become infected via IDU, are more likely to be women and are more likely to be younger in age.

Figure 1.8: Comparison of Risk of HIV Acquisition for Aboriginal Female, Non-Aboriginal Female, Aboriginal Male and Non-Aboriginal Male in Northern Alberta.



Source: Birse E., Shokoples S., and Houston S. Canadian Journal of Infectious Diseases. Volume 10 Suppl B March/April 1999.

Summary. Even though Aboriginal people only make up a small percentage of Canada's total population they are over-represented in the number of new HIV cases as well as the number of new AIDS cases in Canada. The categories of HIV infection differ among Aboriginal people as compared to the general population. Aboriginal people are younger at onset of HIV, more women are being affected, and IDU represent more HIV cases. If estimates are correct that at least one-third of all HIV cases are not reported then the actual number of HIV cases higher. Aboriginal people are younger than the general Canadian population which is of concern. The average age of HIV onset is now 23 years of age. The average Aboriginal age is 23 years of age. Obviously, action needs to be taken to prevent the transmission of HIV among this vulnerable group. A review of the literature is necessary in order to understand that HIV prevention plays a critical role for Aboriginal people. Due to the young age of onset for HIV transmission, Aboriginal youth are of primary concern because they may be participating in high-risk activities such as IDU, MSM, unprotected sexual intercourse, and sex trade. Data indicates that there is an urgent need to develop HIV prevention programming that specifically focuses on at-risk Aboriginal youth.

Literature Search: Prevention Programs for HIV/AIDS

Locating Studies. Four databases were used to systematically search for articles pertinent to HIV Prevention in Aboriginal people and youth. Medline (1966 – October, 2001), HealthSTAR (1975 – October, 2001), EMBASE (1988 – September, 2001), and PsychINFO (1887 – December, 2001) were the four primary databases used. Eight other databases were used to check results against the four primary databases used. These eight were: PubMed (1966 – November, 2001), CINAHL (1982 – December 2001), Eric

(1985 – December 2001), PolarInfo (1996 – Present), International Pharmaceutical Abstracts (1970 – January, 2002), Web of Science/Science Citation Index Expanded (1975 - Present), Web of Science/Social Science Citation Index (1975 - Present), and Dissertation Abstracts (1861 - 2001).[31] A comprehensive search was conducted using appropriate terms selected from the Medline controlled vocabulary (see Appendix 1).

Medline was searched using a combination of MeSH subject headings then supplemented with text words. A search strategy was developed to retrieve pertinent literature on HIV infections, health education and health promotion. The search used exp hiv infections and combined those results with articles retrieved by the following MeSH headings: health behaviour, risk-taking, sex behaviour, safe sex, sexual abstinence, health education, health promotion, and risk. These results were then combined using the Boolean operator OR with exp hiv infections/pc (prevention and control). A second search using key words and truncation retrieved articles pertinent to the study population: aboriginal$, native$, metis$, North American Indians, Eskimos, or inuit$. The two search results were then combined with the Boolean operator AND. This resulted in 119 articles that were examined. As a further check, another search was run to retrieve review articles on hiv prevention and control. The *health education, *health promotion, *health behaviour subject headings were combined using the OR operator. These were then combined (using AND) with the exp hiv infections/pc search the limited to review articles yielding 90 articles to be examined. As a further check, the results obtained from the combined searches of the exp hiv infections/pc AND *health education, *health promotion, *health behaviour were limited to adolescence and North America yielding 180 articles to be examined. These three search results were combined using the Boolean

operator OR to yield a total of 389 articles to be reviewed. The same search strategy was conducted in HealthSTAR and non-medline articles were retrieved (see Appendix 2). Similar search strategies were conducted in the two remaining databases (for details, see Appendix 3 and Appendix 4).

Inclusion and Exclusion Criteria. Search results from all four databases were combined resulting in 1140 articles that were potentially relevant to the topic of interest. Duplicates were then eliminated resulting in 752 potentially relevant articles. From the second set of database searches (those that were used as a check) 17 articles were found that were not listed in the primary search indicating that there was 97.74% overlap. Thus, the search uncovered almost all of the relevant articles. These 17 articles were then added to the main search results to yield a total of 769 articles that were potentially relevant to the topic. Inclusion and exclusion criteria were developed and are presented in Table 1.8.

Table 1.8

Exclusion and Inclusion Criteria for Articles

Articles Excluded if they:

1. were published prior to 1990;
2. were written in a language other than English;
3. dealt with a prevention of a disease or condition other than HIV or AIDS (e.g., diabetes);
4. were not related to HIV/AIDS prevention;
5. dealt with support services rather than HIV prevention (e.g., HIV infection has already occurred);
6. dealt specifically with minority groups other than Aboriginal (e.g., African-American and latino);

7. dealt only with rural settings or reservations;
8. dealt with pharmaceutical treatment of HIV/AIDS;
9. dealt with governmental policy, organization policy or procedures;
10. did not fall into the target group of adolescence or youth;
11. dealt with economic or funding issues;
12. described situation/epidemiology of HIV/AIDS status but did provide alternatives for prevention;
13. were unpublished dissertations; and/or
14. were studies conducted outside of North America

Articles Included if they:

1. provided implications for prevention program development for adolescents and/or youth;
2. provided a comprehensive look at situation specifically among Aboriginal peoples and provided recommendations for prevention;
3. provided a comprehensive look at the situation among at-risk adolescents and/or youth (e.g., urban, street-involved-youth, IDU, MSM, sex-trade) and provided prevention strategies;
4. discussed HIV risk factors and behaviours specific to adolescents and/or youth;
5. involved Aboriginal community members in the research (e.g., community-based);
6. evaluated urban prevention projects geared toward adolescents and/or youth; and/or
7. evaluated school-based HIV/AIDS education and prevention programs

---

A total of 79 articles met the review inclusion criteria. A manual search was also conducted which produced 8 reports and 2 books to be reviewed. As a further check of the search strategies, an author search was conducted. Also, the references to three

articles that were exactly on target were examined to ensure relevant material was included.

Results of Literature Review

The remainder of the articles that do not deal with demographics have been divided into five categories: HIV prevention among adolescents, Aboriginal HIV prevention, urban/street-youth/inner-city focused programs, school-based interventions and health promotion and theoretical perspectives. These articles are summarized in Table 1.9 (See Appendix 5).

HIV Prevention among Adolescents. This section reviews 16 articles and 1 report dealing with HIV/AIDS prevention specific to adolescents and/or youth. The main themes address knowledge, attitudes, risk factors, high-risk behaviour, behaviour change, education and prevention. When compared to each other these articles contain similar findings: sustained HIV prevention programs lead to sustained change; intensive interventions lead to greater risk reduction; skills building helps to reduce risk behaviour; access to services helps to reduce risk behaviour; knowledge alone does not change risk behaviour; theory-based interventions that focus on the specific needs to the target group need to be developed; working at the community level leads to behaviour change; cultural sensitivity needs to be considered when developing HIV prevention strategies; and the target group/community must be involved in HIV prevention from the start. Please refer to Table 1.9 (see Appendix 5) for complete synopsis.

Aboriginal HIV Prevention. This section reviews 20 articles, 8 reports and 1 book that address the issue of HIV/AIDS and Aboriginal peoples. The main themes address risk factors, high-risk behaviour, knowledge, attitudes, beliefs, theory, risk

reduction, education, prevention, traditional medicine, and culture. All of these resources contain similar findings: misconceptions still exist about HIV/AIDS (i.e. "white gay man's" disease), multi-component approaches need to be developed; skills building is identified as important to reducing risk behaviours; issues of trust and credibility of non-Native organizations may hinder effectiveness of prevention programs; involvement in high-risk behaviours such as sex trade are often conducted in order to survive; access was identified as a major barrier to risk reduction; alcohol and drug abuse remain a pressing issue for this group; empowerment for this group is a key issue for success; negotiation skills need to be developed; specific needs must be considered; HIV prevention should be culturally sensitive, include traditional values, beliefs and attitudes and include a language component, and be community focussed; urban-reservation mobility is an issue; more focus should be placed on urban Aboriginal communities; street involvement is a major factor for HIV infection among this group; discrimination and stigmatization are issues that severely hinder effectiveness of HIV prevention; and Aboriginal people should be involved with development and implementation of HIV strategies from the beginning. Please refer to Table 1.9 (see Appendix 5) for complete synopsis of all resources pertaining to this group.

Urban/Street Youth/Inner-City HIV Programs. This section reviews 14 articles that deal with urban/street youth and inner-city HIV programs. The main themes focus on knowledge, attitudes, risk behaviours, risk reduction, theory, education and prevention. Similar findings are found: innovative prevention strategies are needed to reach this target population; misconceptions about HIV/AIDS are still evident among this group; fear as an educational tool is not advised; education must occur over time and

should be ongoing; peer-based initiatives seem to work well for this group; services must be flexible and tailored to the specific needs; community-based programs are important in order to reach this population; culture should be considered when developing HIV/AIDS prevention strategies; the developmental stage of youth should be considered; high-risk behaviours are often practiced in order to survive; and this population of youth are often homeless and not in school to benefit from school-based prevention programs. Please refer to Table 1.9 (see Appendix 5) for complete review of specific programs.

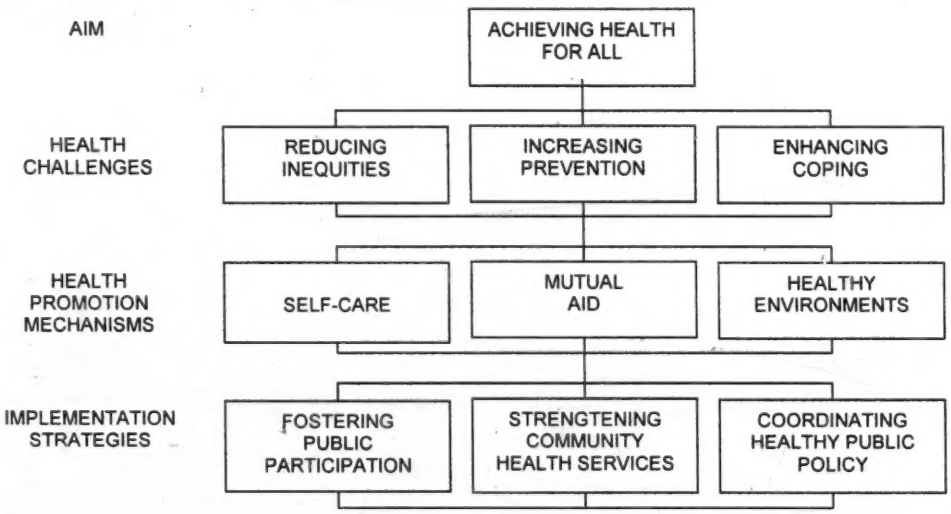
School-based HIV Prevention. This section reviews 8 articles specific to school-based HIV prevention. The main themes among this section are knowledge, attitudes, risk behaviours, education and prevention. Review of these articles finds that: brief programs have little effect on knowledge, attitudes and behaviour change; sustained programs over longer periods of time are more effective; innovative programs are required to change risk behaviour; youth who engage in high-risk behaviours such as IDU are often not in school and do not benefit from school-based HIV prevention strategies; and programs need to be multi-component in nature supplemented with non-curriculum based and community-based activities to be more effective. Please refer to Table 1.9 (see Appendix 5) for individual reviews.

Health Promotion and Theoretical Perspectives. This section will provide an overview of Health Promotion and Theory using information gathered from 11 articles and one book. This is necessary in order to set the stage for discussion concerning HIV Prevention/Health Promotion for the target group of Aboriginal inner-city youth.

Health Promotion. Wardrop states that "Health promotion is our most effective tool in the prevention of AIDS."[32] The most commonly used definition of

health promotion is that set forth by the World Health Organization (WHO): "Health promotion is the process of enabling people to increase control over, and to improve, their health."[33] The use of a health promotion framework allows for an HIV/AIDS prevention approach that is versatile and incorporates many different strategies such as education, self-efficacy, community development, community empowerment, disease prevention, public policy development, mass communication, and organizational changes. Such a framework promotes responsibility by individuals as well as society.[34] Figure 1.9 illustrates such a framework for health promotion.

Figure 1.9. A Framework for Health Promotion



Source: Wardrop. Canadian Journal of Public Health – Supplement 1, January – February, 1993.

There are three health challenges that are identified in the framework. Wardrop (1993) looks at how these three challenges apply to AIDS prevention in Canada:

1. "Reducing inequities means taking action to minimize the economic, social, regional, gender-related and other disparities which handicap some Canadians and undermine their prospects of enjoying the best possible health. (p. S10)"[35]

2. "Increasing prevention is another challenge. This means stepping up our efforts in public education and engaging in other activities aimed at reducing the occurrence of preventable illness in Canada. (p. S10)"[36]

3. "Enhancing people's capacity to cope is a challenge which involves ensuring that those Canadians who are unavoidably ill or chronically disabled have the information, support and skills they need to make their situation as tolerable as possible. (p. S10)"[37]

The next step in the process is to address these challenges. In order to do this the health promotion mechanisms of self-care, mutual aid and healthy environments are taken into consideration. Self-care involves the decisions that people make about their own health. This area emphasizes that individual lifestyle and behaviour are important. Mutual aid involves the help that individuals receive from others in the community. This may include support networks established to help cope with difficult situations. Healthy environments involve the creation and maintenance of social, political, economical and physical environment in order to promote health.[38]

Associated with the three health promotion mechanisms noted above are coordinating healthy public policy, strengthening community health services and fostering public participation. Public policy requires investigation of factors such as education, housing, living conditions, and transportation in order to develop policies that are equitable for everyone. Strengthening community health services explains that current health services are adjusted in order to allocate increased responsibility to community-based health services. Community-based services require improved training for health professionals, strengthened relationships with institution-based services and allocation of funds to communities. Fostering public participation helps people to gain control over factors that are affecting or will affect their health. People at risk for HIV/AIDS know what their needs are and can identify issues that will help in the development of HIV/AIDS prevention programs. It is here that we see community

development serving as the key to planning programs that are effective and relevant. Community development "involves people associated with a community in a process to: 1) identify issues and problems affecting their community; 2) develop plans, skills, and capabilities to act on concerns; 3) determine what resources are available and required; and 4) implement plans for change."[39]

The health promotion framework allows for equal opportunities for all people in order for them to achieve control over their health. The framework is a comprehensive method in order to address the issue of HIV/AIDS prevention in a coordinated fashion that takes into consideration community-based theories.

Theoretical Perspectives. It is important to distinguish between theories that emphasize the individual and those theories that emphasize the community. Although Western schools of thought tend to concentrate on the individual, it is difficult to do so within Aboriginal communities. Aboriginal cultures place much importance on family and community. However, the situation among Aboriginal inner-city youth may differ. Therefore, it is important to keep in mind that theories from both contexts may come into play and interact with one another in order to develop HIV prevention programming that is appropriate for this target group. Table 1.10 presents some theories that could be used to promote changes at the individual level, while Table 1.11 presents some theories that could be used to direct action at the community level.

Table 1.10

Approaches, Models, and Theories Emphasizing the Individual Level

Cognitive and decision-making theories
Health belief model
Theory of reasoned action

Learning Theories
- Social cognitive theory
- Self-efficacy theory
- AIDS risk reduction model
- Transtheoretical model of behaviour change

Source: Otis J., Levy J., and Drouin M. Sexual-Health Education and Promotion. In Social work and HIV.The Canadian Experience. 1998.

Table 1.11

Approaches, Models, and Theories Emphasizing the Community Level

The theory of diffusion of innovations

Social marketing theory

Theories of community organization
- Social planning
- Social action
- Emergent change methodology

Source: Otis J., et al. Sexual-Health Education and Promotion. In Social work and HIV. The Canadian Experience. 1998.

Approaches, Models, and Theories Emphasizing the Individual Level

Cognitive and Decision Making-Theories. These theories assume that people are rational, are capable of processing information, and use information to cease risky behaviours once they know those behaviours are risky. Essentially, these theories assume that an individual is capable of making a rational decision to use the information about risky behaviour and make choices to avoid such risks.[40-41]

Health Belief Model. This model was one of the first theories to focus on health behaviour change. The basic idea underlying this model is that an individual's beliefs and attitudes are key determinants of their health actions.[42] This model looks at an individual's perceived risk susceptibility, perceived severity of risk, perceived benefits of behaviour change, and barriers to change.[43-44] These four factors are described as:

1. Perceived susceptibility – "the individual's subjective perception of risk or vulnerability to a health threat; for example, to what degree does the individual believe that risk is likely. (p. 51)"[45]

2. Perceived severity – "refers to the individual's perceptions of the seriousness of the health threat. It includes an evaluation of the potential consequences that may result from encountering a health problem, including physical harm or interference with social functioning. (p. 51)"[46]

3. Perceived benefits – "are the individual's beliefs regarding the effectiveness of strategies designed to decrease vulnerability or reduce the threat of illness. (p. 51)"[47]

4. Perceived barriers – "refer to the assessment of potential negative consequences that may result from taking particular health actions. These barriers include physical, psychological, and financial demands (i.e. pain, inconvenience, or expense). (p. 51)"[48]

It is often the case that adolescents, youth and adults do not act in such a rational manner. Often, they discount the risks and view themselves as not susceptible to HIV infection.[49] This model is probably limited in its use with adolescents because it does not take into consideration several of the factors that influence risk-taking behaviour such as emotions, peer pressure and social norms. The validity of this model is in question because it is difficult to measure the behavioural change of the adolescent and maintenance of this behaviour change is not followed.[50]

Theory of Reasoned Action. Examination of attitudes, beliefs, behavioural intentions and the observed displayed action lead to prediction of an individual's behaviour. This is a linear progression from attitude to action. There is no room for movement from one stage to another outside of the linear progression. In other words, the individual cannot retract to a previous stage or skip a stage. This theory is often not relevant to HIV/AIDS behaviours because this issue is one that is largely influenced by emotions.[51] A linear model would not be relevant in an Aboriginal

community because there is no flexibility for movement. Flexibility to go back and re-visit previous stages in the research process is important in research with Aboriginal communities because it allows them the freedom to make changes based on the needs of that particular community.

Learning Theories. Learning theories have often been used for the development of numerous preventive education programs. These theories highlight the importance of environmental conditions that influence behaviour change. The identification of these conditions enables individuals to affect change.[52]

Social Cognitive Theory. This theory takes into consideration cognitive processes and identifies that individual behaviour is due to the interaction of cognition, environment, physiology, and personal behaviours.[53] There are two widely used domains in HIV/AIDS prevention: 1) modelling, the imitation of role model behaviours; and 2) self-efficacy, the individual's ability to control their own behaviours.[54-55] This theory is often the basis for most of the learning theories that are used in HIV/AIDS education and prevention.[56] There remains an issue with this theory. This theory may or may not be relevant when working with individuals whose decisions are based on the result of group norms.[57] The previous statement may hold true for Aboriginal communities as well. Particularly for Aboriginal inner-city youth who may be largely influenced by their peers as well as their specific communities.

Self-Efficacy Theory. This theory treats behaviour as a process rather than an end action to beliefs and attitudes. Individuals go through stages ranging from practicing risky behaviour to learning information about said behaviour then adopting and maintaining safer behaviours. The process of graduating from one stage to the next

is dependent on an individuals drive to change risk behaviour and the belief in their own efficacy. This theory holds promise for prevention of HIV/AIDS infection because the process is accepted as dynamic in nature and that adoption of safer behaviour is influenced by outside factors.[58]

AIDS Risk Reduction Model. This model contains three stages: labelling; commitment; and enactment. Labelling entails the individual identifying behaviours that are risky. The individual must identify high-risk behaviour before change will be considered. Commitment occurs when an individual decides to change behaviours based on cost-benefit factors and their ability to change. When the individual seeks information, develops prevention strategies and implements solution strategies, enactment occurs. This model focuses specifically on behaviour change to reduce the risk behaviours that lead to HIV infection.[59] This model has been used often in primary prevention programs for high-risk youth but fear, stress, and social norms have influenced the effectiveness of moving from one stage to the next.[60]

Transtheoretical Model of Behaviour Change. This model is also known as the stages of change (SOC) theory. This theory incorporates concepts from fellow theories and utilizes a stage process. Individuals may move from one stage to another in both directions. This theory has five stages: precontemplation; contemplation; preparation, action, and maintenance.[61] Processes of change that medicate progression between stages of change include: consciousness raising, dramatic relief, environmental re-evaluation, self-re-evaluation, self-liberation, counter-conditioning, helping relationships, reinforcement management, and stimulus control.[62]

Approaches, Models, and Theories Emphasizing the Community Level

Theory of Diffusion of Innovations. This theory postulates that behaviour change is a function of the change itself. This theory communicates a new product or service to people and this becomes utilized within that population. The innovations in this process should be flexible, reversible, compatible with population in question, have advantages over other products or services, and involve little risk. This theory has five stages: awareness of a problem, interest in the proposed solution, trial, decision, and adoption.[63] According to Otis et al (1998), there a six steps in developing a new product or service:

1. recognition of a problem or need;
2. research, first basic, then applied, into the product and the potential adopters;
3. development of the new idea according to the needs of various adopters;
4. commercialization (production, marketing, and distribution);
5. distribution and follow-up on adoption; and
6. evaluation of effects and consequences.

This theory also advocates the use of opinion leaders to influence attitudes, beliefs and behaviours of populations. The use of these leaders help to shape HIV/AIDS prevention programs that are culturally appropriate for specific populations. This is particularly important considering that the community itself is a major factor in the outcome of HIV/AIDS prevention.[64]

Social Marketing Theory. This theory places an emphasis on communication. It is a process similar to that of the theory of diffusion of innovations. The size and nature of the market of interest are determined and then specific areas are targeted. A key concept identified in this theory is the notion of the "marketing mix." This concept essentially entails distribution of a product or innovation, development of communication strategies, personal communication, media involvement, public relations, and promotion.[65] Price (2001) describes social marketing as:

> "the application of marketing tools, concepts and resources to encourage positive behaviour change among those underserved by existing public and private health systems. It advertises and promotes commodities, services and behaviour change through mass media, indigenous drama, songs, and poetry, and through interpersonal communications; and usually charges subsidized prices for products and services distributed by commercial distribution systems to retail outlets, and through clinics and community groups (such as market traders, community promoters and sales agents). Social marketing's behaviour change strategy seeks to promote access to and demand for goods and services by integrating health education with commercial brand advertising. (p. 231)"[66]

Aggleton (1997) identifies that social marketing may have several definitions depending on the use of the theory. These definitions may vary from public service announcements to selling health products to poor and lower income consumers to implementing behaviour change concepts. Ide[illegible]d are five steps to developing an effective social marketing approach: 1) determine the benefits and barriers of the new product/service and offer choices that offer more benefits than barriers; 2) try to find innovative methods to promote the product. 3) try to minimize the costs of the product or service; 4) determine the most appropriate locations for the product or services to be made available, accessibility is an important issue; and 5) determine how best to promote the product or service (e.g., advertising, public relations, and/or communication). What messages to promote should be determined and how to promote them (e.g., via opinion leaders). The social marketing theory has been quite successful in condom promotion programs, which in effect reduces the risk of HIV infection.[67]

There are, however, concerns with this theory. It is thought that social marketing places too simple a solution (e.g., condom distribution) to complex situations such as HIV/AIDS without examining the social aspects that cause the disease. There are also ethical concerns associated with this theory such that it uses manipulation and fear to promote its product or service (e.g., promoting condom use).[68]

Theories of Community Organization

Social Planning. Social planning involves rational strategies and changes that the experts control to resolve a social problem. Even though the perspective of the community in question is taken into consideration, it is the experts in the field that ultimately make the final decisions on how the prevention strategy will proceed.[69] This method of prevention planning is not one that would function well in an Aboriginal community.

Social Action Theory. Social action involves disadvantaged sections of society organizing themselves to demand fair and equitable distribution of services. Social action ensures that tasks are completed, and concentrates on strategies to make demands heard. Social action promotes the empowerment of individuals and community.[70] This theory looks inviting to be used in Aboriginal communities.

Emergent Change Methodology. This methodology is an extension of social action in that it promotes individual and community empowerment to bring about change that is developed by the people for the people. The emergent change methodology is comprised or four repeating, non-linear steps.[71] These four steps are identified bellow:

1) Problemation – "consists in identifying, with the actors, the situation posing the problem in order to lead them to express what it is they want to change and what means they see of bringing this about. The intervener does not interfere in this process of identifying the problem or objects of change. (p. 19)"[72]

2) Conceptualization – "the intervener becomes the analyst. He identifies the different visions and develops various conceptual models. These models are based on scientific knowledge, but should reflect the constructions of meaning that the actors give them. (p. 19)"[73]

3) Deliberation – "the models thus generated are compared with the actors' reality. The scientific, theoretical, and experiential worlds come together: the proposed models are transformed, evolve. (p. 19)"[74]

4) Contextualization – "the actors decide on the action to be taken and carry it out. (p. 19)" [75]

This methodology holds strong potential for utilization within Aboriginal communities to develop HIV prevention programming.

Limitations of Theories

Although theory-based prevention methods have reduced sexual risk behaviour, there are limitations to the effectiveness they have with adolescents and high-risk youth.[76] The theories tend to be based on rational concepts that do not take into account the emotional nature of HIV/AIDS or the role of culture on decision-making. In other words, the situation that adolescents are presented with is one that is emotionally charged and often influenced by the cultural context of their situation. For example, adolescents are often impulsive, feel invisible to harm, engage in denial, and are often not thinking about the future or consequences of actions. They are also influenced by peer pressure, gender norms, shame, homophobia, etc… All of these factors affect an adolescent's ability to make responsible decisions.[77] Also, there must be consideration given to the unique situation of Aboriginal peoples. The thought that individualistic programming may not work well within this community. This is a matter of opinion and will be determined at a later date, but it seems logical to assume that community focused and community driven programming, with an underlying focus on the individual, may be a possible effective route in development of HIV prevention programming for this group.

The Research Approach

Most HIV prevention projects for aboriginal people have focussed on reservation and rural communities. The literature review reveals that very little community-based or

participatory action research has been done with the Aboriginal youth population. More emphasis must be placed on the urban Aboriginal youth population.

Qualitative Research. Qualitative research focuses on the social interactions of daily life and the meanings that participants place on these interactions. Qualitative research pulls researchers out of laboratories into natural settings, which fosters the use of multiple methods to conduct research. Qualitative research is interpretive, realistic, and concerned with the lived experience of participants.[78] Marshall and Rossman (1999) identify eight characteristics of qualitative research and are presented in Table 2.1.

Table 1.11

Characteristics of Qualitative Research

Qualitative Research
Takes place in the natural world
Uses multiple methods that are interactive and humanistic
Is emergent rather than tightly prefigured
Is fundamentally interpretive
Qualitative Research
Views social phenomenon holistically
Systematically reflects on who she is in the inquiry
Is sensitive to her personal biography and how it shapes the study
Uses complex reasoning that is multifaceted and iterative

Source: Marshall and Rossman (1999, p. 3).

Creswell (1998) defines qualitative research as "an inquiry of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting." (p. 15)

Qualitative research is ideally suited for Aboriginal communities due to it's holistic character, unobtrusiveness, flexibility, and natural setting. Traditional qualitative research holds (1) that knowledge is subjective, (2) that researchers gain knowledge from

participants but they maintain some level of neutrality, and (3) that society is structured and orderly.[79] Traditional qualitative research finds meanings in such methods as: narrative analysis, action research, critical ethnography, participatory action research, and feminist research. These focus on the change of social structures and processes rather than outcomes.[80] The guiding principles of participatory action research were utilized in this study.

Participatory Action Research. "Participatory action research (PAR) has been heralded as an important research methodology to address issues of research relevance, community involvement, democracy, emancipation, and liberation."[81] (p. 1106) PAR is used to facilitate research with communities that seek empowerment and capacity building to design, implement and maintain their own health care programs. PAR is defined as a "systematic investigation, with the collaboration of those affected by the issue being studied, for the purpose of education and taking action on effecting social change. The research centers on community strengths and issues and explicitly engages those who live in the community in the research process."[82] (p. 192) PAR is distinctive because it ensures the active involvement of those who are affected by the issue in all stages of the research process from design, development, implementation, analysis, and dissemination of results. Minkler (2000) identifies that PAR is:

- participatory
- cooperative, engaging community members and researchers in a joint process in which both contribute equally
- a co-learning process for researchers and community members
- a method for systems development and local community members

- an empowering process through which participants can increase control over their lives by nurturing community strengths and problem-solving abilities
- a way to balance research and action

PAR consciously blurs the line between researcher and researched. Essentially, the researcher becomes a participant and co-learner in the research.[83] Lindsey and McGuinness (1998) present a framework for conducting PAR which includes: (1) "entry into dialogue with the community and developing a partnership so that the community's issues may be explored; (2) data gathering whereby researchers and community members act as a research team; (3) data analysis and feedback to the community to ensure a collective understanding of the data and the issues; (4) implementation of action plans to resolve the issues; and (5) evaluation of the results of the action."[84] (p. 1108)

PAR allows for the mutual exchange of knowledge and expertise between stakeholder organizations, researchers and community members. This leads into the process of community-based research that was followed for conducting research with members of Aboriginal communities.

Community-Based Research. "Community-based research (CBR) begins where the people and the problems are. Such research entails innovative and practical problem-solving methodologies that build on cultural, social and spiritual values derived from the community itself."[85] (p. 20) A CBR approach ensures mutual learning between researcher and participant placing emphasis on action important to research and theory building. Such a framework provides the researcher with a better understanding of the issue at hand and stimulates the community to determine what is affecting their conditions. This method creates results that directly convert into actions for the community involved.[86]

In CBR predetermined measures are not applied, instead interactive measures emerge during the research process. The results that ensue must make sense and be focused towards the community rather than the researcher. The knowledge that is generated is pragmatic, useful and empowering. CBR is a philosophy for inquiry, which may involve full action and differing degrees of empowerment. CBR is an ideology that is able to adapt from non-action to full participation.[87] "Community-based research is a philosophy for inquiry that allows for variation in the nature of action and participation and in the conceptualizations of what constitutes social-science research."[88] (p. 21)

The Research Question. The focus of the research was on HIV prevention programming for urban Aboriginal youth as determined by HIV Edmonton (the primary stakeholder) and the researcher. The research project is entitled "**Development of a Community-Based HIV/AIDS Prevention Program for Urban Aboriginal Youth".** This project determined *what issues needed to be addressed in order to construct and deliver a successful prevention program for urban Aboriginal youth.* This project aldo determined *how we, as service providers, can meet the needs of urban Aboriginal youth to prevent the spread of HIV/AIDS.* Stakeholder organizations identified by HIV Edmonton and the researcher included: Canadian Native Friendship Centre, Native Healing Centre, Bent Arrow, Poundmaker's Adolescent Treatment Centre, Amiskwaciy Academy, Boyle Street Co-op, Edmonton Urban Aboriginal Initiative, St. Joseph's High School, Terra, Freshstart, Crossroads, Mother Bear, Mountain Plains, Red Road, Ben Calf Robe, Gay and Lesbian Community Centre, Rights of Passage, Métis Child and Family Services and Urban Multipurpose Aboriginal Youth Centres.

Community-based research initiatives that combine the knowledge and skills of

many stakeholders have a variety of benefits. Collaboration with stakeholders allows for networking and can lead to the widespread dissemination of results, which ensures that the research is highly profiled as well as extending its applicability to other communities. The incorporation of a variety of perspectives and experiences ensures that the research is credible and useful. Also, a variety of partners ensured that observations and insights that might have otherwise been missed were included. Most importantly, community-based research empowered participants, which lead to growth and learning.[89]

CHAPTER 2: Design and Methodology

Introduction

Statistical data presented earlier and results from the literature review indicate that urban Aboriginal youth are at particularly high-risk for HIV transmission. This research project is of great importance to take action in order to reduce the rate of HIV transmission among Aboriginal youth. Thus, overall aim of the research was to produce information that could contribute to a greater understanding of the issue. This study utilized qualitative and quantitative research methods incorporating the principles of participatory action research within a community-based research project.

Study Setting

Since 1984, HIV Edmonton has been working with individuals and organizations in North-Central Alberta. HIV Edmonton aims to prevent the spread of HIV, to educate about HIV, and to support infected individuals and/or those affected by HIV.[90] HIV Edmonton identifies the following as its major goals:

- To collaborate with organizations and institutions which can assist in addressing HIV and related issues.[91]
- To advocate through collective efforts for individuals, communities and populations around issues related to HIV. [92]
- To provide support and enhance the lives of those infected and affected by HIV.[93]
- To limit the transmission of HIV particularly through population health strategies including health promotion and harm reduction.[94]

At the time of this study, HIV Edmonton had two portfolios that were relevant to this research. The first is the Aboriginal portfolio, which aims to "develop culturally specific support, health promotion and outreach services for Aboriginal populations."[95]

Relationships with individuals, communities and organizations must be developed in order to deliver effective programming in Aboriginal communities. The work being done in this portfolio has focused on care and support as well as awareness and prevention.[96] The second is the Youth portfolio, which aims to ensure "that appropriate and timely information be given to youth."[97] This portfolio has mainly focused on the Youth Theatre Project but has received funding to expand into other areas. Some projects that are underway include: train the trainer youth and HIV workshops, a peer education program, membership with Expecting Respect, and partnership with the Old Strathcona Youth Co-op.[98] Again, there has not been a program developed specifically for Aboriginal youth in this portfolio.

Participatory Process

The author approached HIV Edmonton and a discussion was held in order to determine the feasibility of developing a research project that addressed HIV prevention for at-risk urban Aboriginal youth. HIV Edmonton was eager to embark on a collaborative research project that addressed this topic. A preliminary research proposal was requested by HIV Edmonton and was presented at a board meeting for approval in January of 2002, where the Board approved the research project. The Coordinator of HIV Edmonton's youth program was appointed as the main agency contact person for the research project. At a second meeting, participating organizations were identified, the study questionnaire was developed and a letter of invitation was written to send to organizations. At a third meeting, the guiding interview questions were developed. A final meeting was held in order to ensure that all documents for the research project were

complete and ready for ethical review by the University of Alberta's Health Research Ethics Board. Ethical approval was obtained on October 1, 2002.

Procedure

Participating organizations were sent an information package explaining the research project and the involvement that would be needed from the organization if they chose to participate. The package included a letter of invitation, an information sheet about the research project and a research agreement form. (See Appendix 6 for the package that was sent to organizations). Nineteen organizations within Edmonton and one organization in St. Paul were identified and sent information packages. The twenty organizations included: Canadian Native Friendship Centre, Native Healing Centre, Bent Arrow, Poundmaker's Adolescent Treatment Centre, Amiskwaciy Academy, Boyle Street Co-op, Edmonton Urban Aboriginal Initiative, St. Joseph's High School, Terra Association, Partners for Youth Outreach School, Crossroads, Mother Bear, Mountain Plains Community Services, Red Road Healing Foundation, Ben Calf Robe Society, Gay and Lesbian Community Centre, Rights of Passage, Métis Child and Family Services and Urban Multipurpose Aboriginal Youth Centres.

An agency meeting was held at the end of October 2002 with participating organizations in order to further discuss the research project and to identify any concerns they may have had. Target areas for the development of an HIV prevention program for at-risk urban Aboriginal youth were discussed. This session also discussed the process of the research project including the questionnaire, the interview, location of data collection, level of involvement from each organization, identification/recruitment of youth, and participant inclusion criteria for the project.

Of the twenty organizations that were invited to participate in the research project, ten agreed to participate. The ten organizations were Poundmaker's Adolescent Treatment Centre, Boyle Street Youth Centre, St. Joseph's High School, Bent Arrow Traditional Healing Society (Wind Dancers), Partners for Youth Outreach School, Métis Child and Family Services Society, Amiskwaciy Academy, Crossroads, Mountain Plains Community Services, and Terra Association. Signed research agreement forms were obtained from the ten organizations and dates for questionnaire completion were discussed. Of the ten organizations that agreed to participate in the research project, five were successful in obtaining questionnaire data for the project (Poundmaker's Adolescent Treatment Centre, Boyle Street Youth Centre, St. Joseph's High School, Bent Arrow Traditional Healing Society, and Partners for Youth Outreach School).

Data Collection

Data were gathered using questionnaires completed by urban Aboriginal youth and one-on-one interviews with urban Aboriginal youth. Only self-identified emancipated Urban Aboriginal youth aged 15-17 years old and Urban Aboriginal youth aged 18-24 years old were eligible for participation. Each participant was asked to complete a 30-minute voluntary, confidential, and anonymous questionnaire. Organization representatives ensured that youth were aware of the research project's purpose before they were asked to participate in the project. The participants were given an information letter that explained the research project and then asked to complete the questionnaire. Completion of the questionnaire was considered consent to be a participant in the research study. One hundred and ninety five (195) questionnaires were distributed by the researcher and/or the appropriate organization representative and

returned to the appropriate representative of the organization and/or to the researcher. Of the five participating agencies, Bent Arrow and Partners for Youth administered questionnaires on their own, while the remaining three agencies (Poundmaker's treatment centre, Boyle Street Co-op, and St. Joseph's High School) preferred the questionnaires to be administered by the researcher. Of the five organizations that actually participated, 145 questionnaires were distributed to participants and 118 questionnaires were completed, for a return rate of 81%. Participants were given an opportunity to identify whether or not they would like to further participate in the research project by taking part in an interview session. Questionnaires were given and completed by Aboriginal youth starting in November 2002 into April 2003.

At the Poundmaker's site participants were gathered into the meeting room and all were given the questionnaire to complete. Two youth who indicated interest in further research were randomly chosen to participate in an interview. The interviews took place in the boardroom of the centre. This room was a locked room with no access without a key. Therefore, the confidentiality of the youth was maintained. At Boyle Street Co-op, youth completed the questionnaires at the drop in centre over a one-day period. There were some youth that could not make it to that day and requested that copies of the questionnaire be left at the desk for them to complete. Those questionnaires were picked up a week later. From the completed interest in interview session form at this study site, two youth were randomly chosen to participate in the interview. The interviews were conducted in the office of the youth worker. The office door locked ensuring the confidentiality of the participants. At St. Joseph's High School questionnaires were completed in the teachers meeting room. From the completed interest in interview

session form, two youth were randomly chosen to participate in an interview. The interviews were conducted in an empty office. The office door was shut to ensure confidentiality. At Bent Arrow, two youth were randomly chosen to participate in interviews. Interviews were conducted in an empty office with the door closed to ensure confidentiality. At Partners for Youth, two youth were randomly chosen to participate in interviews. Interviews were conducted in a teacher's office with the door closed to ensure confidentiality. Table 2.1 identifies the participating organizations along with the number of questionnaires given to each organization, who administered the questionnaire, the number of questionnaires returned, the number of interview forms completed and the number of interviews conducted.

Table 2.1

Study Sites and Data Collection Methods.

Participating Organizations	Number of Questionnaires Given	Questionnaire Administered by	Number of Questionnaires returned	Number of Interview Forms Completed	Number of Interviews Conducted
Completed Participation:					
• Poundmaker's Adolescent Treatment Centre	25	Researcher	23	20	2
• Boyle Street Youth Centre	50	Researcher	48	16	2
• St. Joseph High School	15	Researcher	6	5	2
• Bent Arrow Traditional Healing Society – Wind Dancers	30	Organization	26	5	2
• Partners for Youth Outreach School	25	Organization	15	6	2
Total:	145		118	52	10
**Non-completed Participation*:					
• Métis Child and Family Services Society	15	Organization	0	0	0
• Amiskwaciy Academy	15	Organization	0	0	0
• Crossroads Outreach	10	Organization	0	0	0
• Mountain Plains Community Services	10	Organization	0	0	0
• Terra Association	0	-	0	0	0
Total:	195		118	52	10

* These five organizations agreed to participate in the research project but never distributed questionnaires.

Survey Instrument. To maintain continuity with previous activities conducted by the sponsoring organization, the survey included a number of questions from a previous survey that HIV Edmonton conducted on a general youth population. The survey included 37 questions. These included seven questions assessing sociodemographics (e.g., age, sex, status, residence, living arrangements, sexual orientation), four questions assessing HIV-related variables (e.g., heard of HIV/AIDS, sources of HIV information, gone for an HIV test, HIV status), fourteen yes/no/don't know questions assessing accuracy of knowledge about HIV/AIDS, three questions assessing sexual risk behaviours for HIV (e.g., number of sexual partners, sexual activities, sex trade), one question with seventeen choices assessing reasons for not using condoms, four questions assessing needle use (e.g., tattooing, body piercing, steroids, injection drugs), six questions assessing drug use in the last month, six questions assessing sexual behaviour in the last month, and five open ended questions assessing opinions (e.g., what programs the youth currently use, what messages/images should be on a poster, what kinds of programs they would like created, how these programs should work, and what they would be interested in participating in/volunteering for with HIV Edmonton). In addition to these items, a standardized scale assessing HIV-related drug use and sexual risk behaviours was included.[99] Appendix 7 provides the questionnaire package that was given to questionnaire participants.

Qualitative Interviews. Of the 118 youth who completed a questionnaire, 52 expressed interest in participating in an interview session. Ten Aboriginal youth were randomly selected to take part in a 30 minute to one-hour interview administered by the researcher. The interviews took place at the organization in which the participant

completed the questionnaire. Interviews were conducted at the same time that questionnaires were being completed. For example, the visit to Poundmaker's Adolescent Treatment centre consisted of travelling to St. Paul, Alberta. Therefore, it was more convenient to have the questionnaires completed and then randomly choose two of the participants, who identified interest in an interview session, to be interviewed. This method was also followed with the remainder of the organizations except that the interviews were completed a few days to a week after the questionnaire was completed.

All participants were guaranteed anonymity and all tape-recorded information was kept confidential. Interview transcripts were assigned a number from 1 to 10 in order to maintain the anonymity of the participants. The interview explored the needs of Urban Aboriginal youth for the development of an HIV/AIDS prevention/promotion program. Based on the guiding interview questions, discussion around the following topics took place during the interviews: risk-taking behaviours, cultural issues, current youth programs/services that are effective (includes non-HIV/AIDS), alcohol/drug use, and Aboriginal traditions/elders/spiritual leaders. All interviews were tape-recorded for subsequent analysis. Appendix 8 provides the interview protocol that was used for interview participants. Participants were given light snacks during the interview as well as $20.00 and if applicable, two Edmonton Transit Tickets following the interview in order to compensate them for their time and participation.

CHAPTER 3: Analyses and Results

Survey Data: Quantitative Analyses

Analysis of the quantitative data (questionnaires) was conducted using SPSS version 11.5. Categories were created that corresponded with each survey item, and a number of composite scale variables were created for analysis.

Description of the Survey Sample

One hundred and eighteen (118) Aboriginal youth aged 15 - 24 participated in the questionnaire portion of the study. Eighty-three (70%) adolescents (ages 15 through 18) represented of the study sample and thirty-five (30%) young adults (ages 19 through 24) comprised the remaining participants. The mean age of this sample was 17.8 years. There were fifty-seven males (48%) and sixty-one females (52%) represented.

Eighty-six youth (72.9%) identified themselves as being First Nations Status, seventeen (14.4%) identified themselves as Métis and fifteen (12.7%) did not identify. With respect to location of residence, twenty-nine (24.6%) lived Downtown and thirty-five (29.7%) lived in the North Side of the city. Forty-nine (41.5%) youth stated that they were living in a house and forty-two (35.6%) said they were living in an apartment. One hundred and fifteen (97.5%) of the survey participants identified their sexual orientation as being straight. One participant identified as being gay, one participant identified as being bisexual and one participant identified as being Two-Spirited. Table 3.1 presents summary statistics for the 118 questionnaire respondents.

Table 3.1

Sociodemographic Characteristics of the Sample.

Variable	Males	Females	Total
Age (M = 17.8, s.d. = 2.3)			

15	10 (17.5%)	10 (16.4%)	20 (16.9%)
16	7 (12.3%)	6 (9.8%)	13 (11.0%)
17	13 (22.8%)	16 (26.2%)	29 (24.6%)
18	9 (15.8%)	12 (19.7%)	21 (17.8%)
19	8 (14.0%)	7 (11.5%)	15 (12.7%)
20	2 (3.5%)	2 (3.3%)	4 (3.4%)
21	6 (10.5%)	2 (3.3%)	8 (6.8%)
23	0	1 (1.6%)	1 (0.9%)
24	2 (3.5%)	5 (8.2%)	7 (5.9%)
Sex	57(100%)	61(100%)	118 (100%)
Status			
Status	43 (75.4%)	43 (70.5%)	86 (72.9%)
Métis	4 (7.0%)	13 (21.3%)	17 (14.4%)
Missing	10 (17.5%)	5 (8.2%)	15 (12.7%)
Location of Residence			
Downtown	16 (28.1%)	13 (21.3%)	29 (24.6%)
West End	5 (8.8%)	14 (22.9%)	19 (16.1%)
North Side	18 (31.6%)	17 (27.9%)	35 (29.7%)
South Side	10 (17.5%)	6 (9.8%)	16 (13.6%)
East Side	2 (3.5%)	5 (8.2%)	7 (5.9%)
*Other	6 (10.5%)	6 (9.8%)	12 (10.2%)
Living Arrangements			
House	23 (40.4%)	26 (42.6%)	49 (41.5%)
Apartment	16 (28.1%)	26 (42.6%)	42 (35.6%)
Condo	1 (1.8%)	2 (3.3%)	3 (2.5%)
Group Home	1 (1.8%)	0	1 (0.9%)
Room and Board	2 (3.5%)	2 (3.3%)	4 (3.4%)
Shelter	2 (3.5%)	0	2 (1.7%)
Hotel	0	1 (1.6%)	1 (0.9%)
Homeless	2 (3.5%)	0	2 (1.7%)
Missing	10 (17.5%)	4 (6.6%)	14 (11.9%)
Sexual Orientation			
Straight	56 (98.3%)	59 (96.7%)	115 (97.5%)
Gay	0	1 (1.6%)	1 (0.9%)
Bisexual	1 (1.8%)	0	1 (0.9%)
Two-Spirited	0	1 (1.6%)	1 (0.9%)

*Note: 'Other' location of residence included central, inner city, North East, North West, Reserve, Leduc, and all over the place (homeless).

HIV Background Information

Of the 118 participants, one hundred and fourteen (96.6%) had heard of HIV and three (2.5%) said they had not heard of HIV. The youth were asked to identify all sources of information that contributed to their HIV knowledge. Table 3.2 presents descriptive results for sources of information. A composite score representing total exposure to HIV information was calculated out of 12 possible information sources (M = 4.8, s.d. = 3.2). Youth were asked if they had ever gone for an HIV test and also asked about their HIV status. None of the participants self-identified as being HIV positive. Table 3.2 presents descriptive data for HIV information and test status.

Table 3.2

Information and Test Status

Variable	Males	Females	Total
Heard of HIV			
Yes	54 (94.7%)	60 (98.4%)	114 (96.6%)
No	2 (3.5%)	1 (1.6%)	3 (2.5%)
Missing	1 (1.8%)	0	1 (0.9%)
Individual Sources of Information			
TV	43 (75.4%)	40 (65.6%)	83 (70.3%)
Community Newspapers	17 (29.8%)	11 (18.0%)	28 (23.7%)
Radio	14 (24.6%)	14 (22.9%)	28 (23.7%)
Brochures/Flyers/Pamphlets	25 (43.9%)	33 (54.1%)	58 (49.1%)
Counsellor/Social Worker	25 (43.9%)	27 (44.3%)	52 (44.0%)
Internet	15 (26.3%)	3 (4.9%)	18 (15.3%)
City Newspapers	22 (38.6%)	15 (24.6%)	37 (31.4%)
Magazines	23 (40.4%)	24 (39.3%)	47 (39.8%)
Relatives and Friends	31 (54.4%)	38 (62.3%)	69 (58.5%)
Doctor of Clinic	32 (56.1 %)	33 (54.1%)	65 (55.1%)
Teacher	26 (45.6%)	34 (55.7%)	60 (50.9%)
Other (not indicated)	14 (24.6%)	11 (18.0%)	25 (21.2%)
Total Sources of HIV Information (M = 4.8, s.d. = 3.2)			
Gone for HIV Test			
Yes	21 (36.8%)	35 (57.4%)	56 (47.5%)
No	33 (57.9%)	26 (42.6%)	59 (50.0%)
Missing	3 (5.3%)	0	3 (2.5%)

HIV Status			
HIV Negative	28 (49.1%)	45 (73.8%)	73 (61.9%)
Don't know	25 (43.9%)	16 (26.2%)	41 (34.7%)
Don't want to say	2 (3.5%)	0	2 (1.7%)
Missing	2	0	2

HIV Knowledge

Participants were asked fourteen yes or no questions about their knowledge of HIV transmission. Ninety-five (80.5%) of the participants correctly knew that AIDS is caused by a virus. One alarming finding was that eleven (9.3%) responded 'no' and twelve (10.2%) responded that they didn't know to this question. Eighty-nine (75.4%) participants said that you couldn't tell if someone had HIV by looking at them. Again, alarming was that ten (8.5%) participants said that you could tell if someone had HIV by looking at them and nineteen (16.1%) didn't know. Twenty-five (21.2%) participants said that there was a vaccine for HIV. Still alarming, forty-two (35.6%) did not agree that there is no cure for AIDS. Seventy (59.3%) youth said you can get HIV by giving an HIV positive male oral sex without a condom, thirteen (11.0%) said no and thirty-five (29.7%) didn't know. Sixty-seven (56.8%) youth said you can get HIV by giving an HIV positive female oral sex without using a protective barrier, eleven (9.3%) said no and forty (33.9%) didn't know. To summarize participants' HIV knowledge, a total accuracy score was calculated by summing the number of correct answers out of 14 possible items (M = 10.7, s.d. = 2.5). Table 3.3 presents the data for HIV knowledge.

Table 3.3

HIV Knowledge.

Variable	Males	Females	Total
HIV Knowledge			
AIDS is caused by a virus			
Correct	48 (84.2%)	47 (77.0%)	95 (80.5%)

Incorrect	4 (7.0%)	7 (11.5%)	11 (9.3%)
Don't know	5 (8.8%)	7 (11.5%)	12 (10.2%)
Can tell by looking at someone			
Correct	40 (70.2%)	49 (80.3%)	89 (75.4%)
Incorrect	8 (14.0%)	2 (3.3%)	10 (8.5%)
Don't know	9 (15.8%)	10 (16.4%)	19 (16.1%)
Pregnant women can give to baby			
Correct	47 (82.5%)	49 (80.3%)	96 (81.4%)
Incorrect	1 (1.8%)	2 (3.3%)	3 (2.5%)
Don't know	9 (15.8%)	10 (16.4%)	19 (16.1%)
There is a vaccine			
Correct	27 (47.4%)	41 (67.2%)	68 (57.6%)
Incorrect	11 (19.3%)	14 (22.9%)	25 (21.2%)
Don't know	19 (33.3%)	6 (9.8%)	25 (21.2%)
There is no cure for AIDS			
Correct	30 (52.6%)	34 (55.7%)	64 (54.2%)
Incorrect	19 (33.3%)	23 (37.7%)	42 (35.6%)
Don't know	8 (14.0%)	4 (6.6%)	12 (10.2%)
Aboriginal People don't get HIV or AIDS			
Correct	44 (77.2%)	44 (72.1%)	88 (74.6%)
Incorrect	11 (19.3%)	12 (19.7%)	23 (19.5%)
Don't know	2 (3.5%)	5 (8.2%)	7 (5.9%)
Only gay men & drug users get HIV/AIDS			
Correct	50 (87.7%)	55 (90.2%)	105 (89.0%)
Incorrect	5 (8.8%)	3 (4.9%)	8 (6.8%)
Don't know	2 (3.5%)	3 (4.9%)	5 (4.2%)
Can get HIV by sitting on a toilet seat			
Correct	42 (73.7%)	54 (88.5%)	96 (81.4%)
Incorrect	4 (7.0%)	4 (6.6%)	8 (6.8%)
Don't know	11 (19.3%)	3 (4.9%)	14 (11.9%)
Can get HIV by kissing someone			
Correct	36 (63.2%)	51 (83.6%)	87 (73.7%)
Incorrect	13 (22.8%)	6 (9.8%)	19 (16.1%)
Don't know	8 (14.0%)	4 (6.6%)	12 (10.2%)
Can get it by sharing a needle with someone who has HIV			
Correct	55 (96.5%)	61 (100%)	116 (98.3%)
Incorrect	1 (1.8%)	0	1 (0.9%)
Don't know	1 (1.8%)	0	1 (0.9%) Can get it by having sex with HIV+ female without a condom
Correct	53 (93.0%)	58 (95.1%)	111 (94.1%)
Incorrect	3 (5.3%)	3 (4.9%)	6 (5.1%)
Don't know	1 (1.8%)	0	1 (0.9%)
Can get it by having sex with HIV+ male without a condo			

Correct	53 (93.0%)	59 (96.7%)	112 (94.9%)
Incorrect	0	1 (1.6%)	1 (0.9%)
Don't know	4 (7.0%)	1 (1.6%)	5 (4.2%)
Can get it by giving an HIV+ male oral sex without a condom			
Correct	35 (61.4%)	35 (57.4%)	70 (59.3%)
Incorrect	7 (12.3%)	6 (9.8%)	13 (11.0%)
Don't know	15 (26.3%)	20 (32.8%)	35 (29.7%)
Can get it by giving an HIV+ female oral sex without a protective barrier			
Correct	38 (66.7%)	29 (47.5%)	67 (56.8%)
Incorrect	4 (7.0%)	7 (11.5%)	11 (9.3%)
Don't know	15 (26.3%)	25 (41.0%)	40 (33.9%)

Accuracy of HIV Knowledge (M = 10.7, s.d. = 2.5)

Sexual Risk Behaviour

Participants reported the number of sexual partners they had (in lifetime) on a scale from zero to more than fifty. Participants were also asked about their sexual activities (e.g., given/ received a blowjob, gone down on a female, given or received anal sex, vaginal sex, hand job). Participants were given a score out of seven for sexual activity with a mean 2.5 and a standard deviation of 1.5. This low score is partially because some questions pertained more to one gender rather than the other. Participants were also asked if they had ever traded sex for money, drugs or shelter. Twelve (10.2%) said they had. Table 3.4 presents the sex-related risk behaviours.

Table 3.4

Sex-Related Risk Behaviours.

Variable	Males	Females	Total
Number of Sexual Partners			
0	1 (1.8%)	4 (6.6%)	5 (4.2%)
1	3 (5.3%)	6 (9.8%)	9 (7.6%)
2-5	10 (17.5%)	18 (29.5%)	28 (23.7%)
6-10	13 (22.8%)	12 (19.7%)	25 (21.2%)
10-25	15 (26.3%)	12 (19.7%)	27 (22.9%)
25-50	7 (12.3%)	5 (8.2%)	12 (10.2%)
More than 50	8 (14.0%)	4 (6.6%)	12 (10.2%)

Sexual Activities			
Given male a blow job	8 (14.0%)	38 (62.3%)	46 (39.0%)
Gone down on a female	39 (68.4%)	8 (13.1%)	47 (39.8%)
Gone down on female during period	6 (10.5%)	2 (3.3%)	8 (6.8%)
Received anal sex	10 (17.5%)	16 (26.2%)	26 (22.0%)
Given someone anal sex	14 (24.6%)	3 (4.9%)	17 (14.4%)
Had vaginal sex	49 (86.0%)	52 (85.3%)	101 (85.6%)
Given a male a hand job	8 (14.0%)	45 (73.8%)	53 (44.9%)
Total Sexual Activity (M = 2.5, s.d. = 1.5)			
Traded Sex for Money, Drugs, Shelter (yes answers only)	5 (8.8%)	7 (11.5%)	12 (10.2%)

Condom Use

Participants were asked why they weren't using condoms. Youth identified eight main reasons for not using condoms. Fifty-eight (49.2%) youth said it was because they had none with them, twenty-one (17.8%) said they didn't care of they got HIV, twenty-two (18.6%) said they weren't at risk for HIV, thirty-eight (32.2%) said that condoms don't feel good, twenty-five (21.2) said that they were straight so they were safe, twenty-nine (24.6%) said their partner didn't want to, and fifty-five (46.6%) said they were drunk/stoned/high and didn't think of it. Participants were then given a total score out of seventeen for reasons they didn't use condoms (M = 3.6, s.d. = 2.8). Table 3.5 presents the data for reasons youth are not using condoms.

Table 3.5

Reasons the Youth are not Using a Condom.

Variable	Males	Females	Total
Reasons for not using a condom			
I had none with me	29 (50.9%)	29 (47.5%)	58 (49.2%)
I don't care if I get HIV	11 (19.3%)	10 (16.4%)	21 (17.8%)
Condoms are too expensive	2 (3.5%)	4 (6.6%)	6 (5.1%)
Buying condoms is embarrassing	4 (7.0%)	5 (8.2%)	9 (7.6%)
Afraid to talk to my partner	4 (7.0%)	12 (19.7%)	16 (13.6%)
I'm not at risk for HIV	16 (28.1%)	6 (9.8%)	22 (18.6%)
I wanted to get pregnant	1 (1.8%)	7 (11.5%)	8 (6.8%)

Was embarrassed to talk to my partner	2 (3.5%)	12 (19.7%)	14 (11.9%)
Condoms don't feel good	20 (35.1%)	18 (29.5%)	38 (32.2%)
I'm straight so I'm safe	17 (29.8%)	8 (13.1%)	25 (21.2%)
My partner did not want to	6 (10.5%)	23 (37.7%)	29 (24.6%)
People like me don't get HIV	9 (15.8%)	6 (9.8%)	15 (12.7%)
I'm not sure how to use condoms	4 (7.0%)	8 (13.1%)	12 (10.2%)
I'm male, so it doesn't affect me	10 (17.5%)	1 (1.6%)	11 (9.3%)
I was drunk/stoned/high and didn't think of it	26 (45.6%)	29 (47.5%)	55 (46.6%)
I was on the pill, or my partner was on the pill	7 (12.3%)	12 (19.7%)	19 (16.1%)
I'm female, so it doesn't affect me	0	7 (11.5%)	7 (5.9%)
*Other	6 (10.5%)	6 (9.8%)	12 (10.2%)

Total of Reasons for not using condoms (M = 3.6, s.d. = 2.8)

* Note: 'Other' reasons for not using a condom were virgin, used condoms, partner is safe, and been with partner for a long time.

Needle Use

Participants were asked questions about needle use behaviour. Forty-eight (40.7%) said they had a tattoo, nine (7.6%) said they had shared a needle for a tattoo, seventy-seven (65.3%) said they had body piercings, eight (6.8%) said they had shared a needle for a piercing, eight (6.8%) said they had done steroids, two (1.7%) said they had shared a needle/rig for steroids, eleven (9.3%) said they had done injection drugs and ten (8.5%) said they had shared a needle/rig for drugs. Participants were then given a score out of four for needle sharing (M = 0.3, s.d. = 0.8). Table 3.6 presents the data for needle related risk behaviours.

Table 3.6

Needle-Related Risk Behaviours.

Variable	Males	Females	Total
Needle use			
Ever had a tattoo	21 (36.8%)	27 (44.3%)	48 (40.7%)
Did you ever share needle for a tattoo	6 (10.5%)	3 (4.9%)	9 (7.6%)
Ever had a body piercing	29 (50.9%)	48 (78.7%)	77 (65.3%)
Ever share a needle for piercing	4 (7.0%)	4 (6.6%)	8 (6.8%)
Have you ever done steroids	3 (5.3%)	5 (8.2%)	8 (6.8%)

Ever share needle/rig for steroids	0	2 (3.3%)	2 (1.7%)
Have you ever done injection drugs	5 (8.8%)	6 (9.8%)	11 (9.3%)
Ever share a needle/rig for drugs	5 (8.8%)	5 (8.2%)	10 (8.5%)

Total for Needle Sharing (M = 0.3, s.d. = 0.8)

Risk Behaviour Scale

Drug Use in Last Month. Participants were asked about their drug use in the last month. One hundred and nine (92.4%) said that they hadn't hit up, two (1.7%) said they had hit up once a week or less, one (0.9%) said more than once a week but less than once/day, one (0.9%) said once a day, and one (0.9%) said 2-3 times a day. Youth were asked if they had used a needle after someone else used, how many different people had used a needle before them, the number of times someone used had used a needle before them, how often they had cleaned needles before re-using them, and how often they had cleaned needles with bleach before re-using them. The participants were then scored out of twenty-four for total drug use in the last month (M = 11.2, s.d. = 10.0). Table 3.7 presents the data for drug use in the last month.

Table 3.7

Drug Use in the Last Month.

Category	Mean	Standard Deviation
Drug Use (Min 0, Max 5)		
Number of times hit up	0.1	0.5
0 Haven't hit up (n = 109)		
1 Once a week or less (n = 2)		
2 More than once a week (less than twice/day) (n = 1)		
3 Once a day (n = 1)		
4 2-3 times a day (n = 1)		
5 More than 3 times a day (n = 0)		
Used a needle after someone else	1.6	1.8
0 no times (n = 2)		
1 one time (n = 1)		
2 two times (n = 0)		
3 3-5 times (n = 1)		
4 6-10 times (n = 1)		
5 more than 10 times (n = 0)		
# of different people who used a		

needle before you	1.6	1.8
0 none (n = 2)		
1 one person (n = 1)		
2 two people (n = 0)		
3 3-5 people (n = 1)		
4 6-10 people(n = 1)		
5 more than 10 people (n = 0)		
# of times someone has used a needle before you	1.4	1.9
0 no times (n = 3)		
1 one time (n = 0)		
2 two times (n = 0)		
3 3-5 times (n = 1)		
4 6-10 times (n = 1)		
5 more than 10 times (n = 0)		
How often cleaned needles before re-use	2.0	1.9
0 do not re-use (n = 2)		
1 every time (n = 0)		
2 often (n = 0)		
3 sometimes (n = 2)		
4 rarely (n = 1)		
5 never (n = 0)		
How often you cleaned needles with bleach before re-using them	2.4	2.3
0 do not re-use (n = 2)		
1 every time (n = 0)		
2 often (n = 0)		
3 sometimes (n = 1)		
4 rarely (n = 1)		
5 never (n = 1)		
Total Drug Use (M = 11.2, s.d. = 10.0)		

Sexual Behaviour in the Last Month. Youth were asked questions concerning their sexual behaviour during the last month. Thirty-seven (31.4%) said they had one partner, thirteen (11.0%) said they had two partners, eight (6.8%) said they had 3-5 partners, four (3.4%) said they had 6-10 partners, one (0.9%) said they had more than ten partners. They were then asked if they had used condoms with their regular sex partners, had used condoms with casual partners, had used condoms when having sex for money/drugs, how many times they had vaginal sex in the last month, and how many times they had anal sex in the last month. The youth were then scored out of twenty- four for total sexual behaviour in the last month (M = 11.5, s.d. = 4.9). Table 3.8 presents the data for sexual behaviour in the last month.

Table 3.8

Sexual Behaviour in the Last Month.

Category	Mean	Standard Deviation
Sexual Behaviour (Min 0, Max 5)		
Number of sex partners in the last month	1.0	1.2
0 None (n = 50)		
1 One person (n = 37)		
2 Two people (n = 13)		
3 Three-Five people (n = 8)		
4 Six-Ten people (n = 4)		
5 More than ten people (n = 1)		
Condom use with regular sex partners	2.7	1.6
0 no vaginal or anal sex (n = 3)		
1 every time (n = 19)		
2 often (n = 11)		
3 sometimes (n = 16)		
4 rarely (n = 8)		
5 never (n = 13)		
Condom use with casual sex partners	2.0	1.3
0 no vaginal or anal sex (n = 6)		
1 every time (n = 23)		
2 often (n = 14)		
3 sometimes (n = 20)		
4 rarely (n = 2)		
5 never (n = 4)		
Condom use when having sex for money, drugs, etc	1.4	2.1
0 no vaginal or anal sex (n = 40)		
1 every time (n = 7)		
2 often (n = 2)		
3 sometimes (n = 3)		
4 rarely (n = 2)		
5 never (n = 14)		
Number of times you had vaginal sex	2.9	1.7
0 no times (n = 8)		
1 one time (n = 10)		
2 two times (n = 7)		
3 3-5 times (n = 14)		
4 6-10 times (n = 13)		
5 more than 10 times (n = 17)		
Number of times you had anal sex	0.8	1.5
0 no times (n = 47)		
1 one time (n = 6)		
2 two times (n = 5)		
3 3-5 times (n = 3)		
4 6-10 times (n = 2)		
5 more than 10 times (n = 4)		
Total Sexual Behaviour (M = 11.5, s.d. = 4.9)		

Relationships Among Variables

Correlational Analysis. Relationships between selected variables were assessed using Pearson Correlations. The more sources of information that youth identified for acquiring knowledge about HIV, the more accurate they were in their HIV knowledge scores ($r = .21$, $p < .05$). There was also a positive correlation between total sexual activity and accuracy of HIV knowledge ($r = .22$, $p < .05$). However, sexual activity was positively correlated with HIV risk behaviours, including needle sharing behaviour ($r = .40$, $p < .05$) and justifications for not using condoms ($r = .40$, $p < .01$). Youth involved in needle sharing had more reasons for not using condoms ($r = .44$, $p < .01$). Table 3.9 presents the significant correlations between the categories.

Table 3.9

Correlations Between Variables

Variable	1	2	3	4	5
1. Sources of Information	--				
2. Accuracy of HIV Knowledge	.21*	--			
3. Sexual Activity	.03	.22*	--		
4. Needle Sharing	-.03	-.02	.40*	--	
5. Reasons for not using Condoms	-.10	-.09	.40**	.44**	--

Note. ** $p < .01$; * $p < .05$.

Logistic Regression Analysis. Logistic regression was used to predict whether or not participants had been tested for HIV, using the 5 knowledge and risk behaviour scores described previously. As shown in Table 3.10, results indicated that these five

variables did significantly predict HIV testing status. Specifically, male participants were significantly less likely to be tested for HIV, compared to female participants (OR = 0.32, 95% CI = 0.11 – 0.88). As age increased (by year) participants' likelihood of being tested for HIV also increased by 1.35 times (95% CI = 1.06 – 1.71). In addition, higher accuracy scores on the HIV knowledge scale were positively associated with being tested for HIV (OR = 1.28, 95% CI = 1.00 – 1.65). Finally, the more reasons participants reported for not using condoms, the more likely they were to have been tested for HIV (OR = 1.25, 95% CI = 1.00 – 1.56).

Table 3.10

Logistic Regression Predicting HIV Testing

Predictors	Model/Step χ^2	Wald	Odds Ratio	95% CI
	20.935**			
Gender				
Male		4.85	.32*	.11 - .88
Female		8.45	Reference	
Age		6.10	1.35*	1.06 - 1.71
Sources of Information		1.09	1.08	.93 - 1.26
Accuracy of Information		3.83	1.28*	1.00 - 1.65
Needle Sharing		.17	1.18	.54 - 2.62
Reasons for not using condoms		3.86	1.25*	1.00 - 1.56
Sexual Activity		2.72	.70	.45 - 1.07

Note. * Indicates significance.

Open-Ended Survey Questions

Participants were then asked five open-ended questions. Of the 118 participants, eighty-two (69.5%) responded to the questions in some form and thirty-six (30.5%) had no responses at all. Appendix 9 presents the responses to the open-ended section of the questionnaire. Youth indicated that they were using several organizations. They indicated that posters should have big, bright slogans that state facts and statistics which

explain the risks of transmitting HIV. They would like to see programs created that target youth before they have sex in order to get the information out to them prior to becoming involved in risky behaviour such as street involvement including gangs and prostitution. They also said that they would like to see programs that are educational but include fun activities such as games, sports, trips, videos, as well as cultural components including powwows, round dances, and talking circles. Youth were asked how these programs would work. They indicated that such programs should be accessible and run by a variety of people who have experience with HIV such as native people living with HIV, teachers, counsellors, elders, peers, and youth workers.

Youth were asked if they would like to participate or volunteer for programs at HIV Edmonton. Four of the youth responded with "I would be interested in volunteering for a program that fights against HIV/AIDS and I would also like to fundraise and hand out condoms, make posters, etc…to help out the community to get rid of HIV/AIDS and help the ones who do have it", "Anything, this disease is eating away at us Aboriginal youth, we need to help each other like building blocks until eventually we won't be the highest for HIV/AIDS. My dream is to eventually see this disease disappear from the Aboriginal communities", "I'd like to run a program where HIV people can come there and just feel at home, eat, sleep every now and then and out handout condoms, bus tickets, etc…" and "I'd like to be someone who people with HIV/AIDS can talk to and hang out with so I can make them feel like a normal person, rather than someone who is scared to even be around them."

Interviews: Qualitative Analyses

The ten interviews were analyzed using QSR N6 for Qualitative Data Analysis.

The interviews were transcribed by the author then imported into QSR. The interviews were analyzed on a line-by-line basis within QSR. Fourteen codes emerged from the data and were grouped into two sections. Each code represents a theme and under each code pertinent data from the interviews were stored for analysis. Section one is *HIV: A concern for Aboriginal youth* which included the following codes/themes: concern for Aboriginal youth, important issues, risks, drinking, drugs, and reduce the risk. Section two is *HIV Programming: Who/What/When/ Where/How* which included the following codes/themes: who to talk to, comfort talking to, who to run program, who should be involved, where to run them, how to run program, involvement and culture.

HIV: A Concern for Aboriginal Youth?

The interview participants indicated that HIV is a concern for Aboriginal youth. They said that Aboriginal youth are involved in risk behaviours including impaired judgement related to drinking and drug use, unprotected sex, street involvement (street fights, gangs and prostitution), unfaithful sex partners, increased risk when living on reserve due to high levels of sexual promiscuity, not thinking of the consequences, sleeping with people they don't know, and access to services is poor.

Concern for Aboriginal youth. Youth who were interviewed indicated that hey thought that HIV/AIDS probably affects Aboriginal youth more than the rest of the population.

> "I think it affects them more out of the fact that they have a higher chance of knowing somebody with AIDS. Um, or being associated with people with AIDS and too, a lot of our youth are incarcerated. So, I think that the HIV rates of incarcerated people are higher so ah, I think they are at higher risk, yes." – Female 24 yrs old

Important issues. Youth identified important issues such as knowing how you get HIV, how it's transmitted, what tests you can go for and to get tested, should know the facts/statistics, prevention, using condoms, not sharing needles, being aware of your actions, HIV reaching their families, how it affects everyone and changes lives, can't get rid of it once you have it, helping HIV positive people cope, not enough knowledge, pregnancy and transmitting to children, and spreading HIV without knowing it.

> "When I think about AIDS, I think about my life, I think about how easy it is to sacrifice your life just for nothing. You know it's a really serious disease." - Male 21 yrs old

Risks. Youth identified risks for HIV transmission such as drug and alcohol involvement, street involvement in gangs, fights, prostitution, sexual promiscuity, unfaithfulness of partners, unsafe sex (not using condoms), parents not being around. One youth said it all:

> "Well, I was pretty, well to tell you honestly, I use to sell drugs and I don't know like, I spent most of my time running around on the streets like trying to find a place to stay or finding some place to eat or just finding somewhere I can go have a blast or party at and ah well just stuff just goes from there, like I'll meet some chick and we'll end up, you know, doing something that night and then I don't the next day, I'll probably go through the same thing again but before I use to just, before, I stopped doing everything else I use, well, I use to shoot up and we shared needles before, I don't really know if I have it or not. Now I am, ya I feel like it because when I went drinking with my bro and his brothers, this was about 5 weeks ago. We were all drinking and then the next thing you know they all started blacking out and they all teamed up on me, they cut me open. Ya. Cut me open here, they put 10 staples there, I had 2 stitches here, 2 stitches here, 3 stitches here, a broken arm and his brother, the one that pretty much told him to come and attacking, he was the one that got cut open that night from his wrist to his the inside of his elbow and ah he's HIV infected and me and him were scrapping and I don't know if we mixed blood. One of my exes, she gave me an STD and I know that for sure. I got that checked out. I know she gave me an STD because well her, I'm not going to say her name, but her she ah, she took me as a fool, she kept fooling around with other guys when I was with her and she was thinking that I didn't know. I've experienced one too many times because well, my Dad him he ah, when I turned ten years old he got me drunk on my tenth birthday. So, ever since then I've been drinking, that's 9 years now. And I've

been making bad decisions ever since because I've been running around on the streets selling drugs and ah, putting girls to work on the streets and stuff like that and it kind of eats me up inside knowing that I can do better than that but I can't." - Male 19 yrs old

Drinking and drugs. Youth indicated that drinking alcohol and drug use among Aboriginal youth is a serious concern when making choices about risk behaviour. Alcohol and drug use impairs judgement causing youth to make poor choices.

"A lot of Aboriginal youth don't take the precautions like, a lot of like I hate to say it, a lot of youth that I know do a lot of drugs, do a lot of drinking and they get to the point where they don't they can't say yes or no about what's going on or they get to the point where they're so into their addictions that they don't care about the risks. When you're drunk, you don't know what's going on and you can't make proper decisions on your own. Like, cause there's some people who drink too much and they overdue it and they can't make right decisions. And drugs, I don't know cause I can't say that I've done serious drugs. Like, I smoked but and I did a few other things, but not anything that would really impair my judgement, I don't think." – Female 23 yrs old

"Teenagers shouldn't even drink. They're not responsible enough, they don't know their limits, they make the wrong decisions being under the influence of alcohol. Drugs also you know, just experimenting with one drug you could just lose. I'm not going to say who but a friend of mine experimented with drugs when we were younger and she went into a coma for six days. She doesn't remember six days of her life and that's what made her really think like how can you not remember six days of your life. To me that's just crazy. She thought all she was doing was smoking a joint and it was laced with like mushrooms and it was something called cocoa-puffs but it was mixed with mushrooms and weed. I don't know what that is but um, ya like that just I think drugs and alcohol make a big difference in the choices you make." – Male 21 yrs old

Strategies to reduce risk of transmission. Youth indicated that risk of HIV transmission for Aboriginal youth must be reduced by having more prevention programs, by talking to the youth, giving out condoms, giving them more options, doing things in a positive way, having more positive influences, having more information available, increasing access to programs, going out in the streets, outreach programs, and getting more involved.

"Have more programs for Aboriginal youth, things like um, where round dances, more like gang prevention, you know. That's where you have to start first because a lot of people in Edmonton, they think that Natives are all one big native and we all stick up for each other. Seriously, how I see it is there are certain gangs there are certain clicks that people hang out with, there are certain, I don't know you have to watch your back you know. So, like gang prevention, having more positive influences, like younger Aboriginal influences on Aboriginal youth. Having more programs, my Auntie has a program, it's Aboriginal youth and Well-being. She started up a couple of years ago. Having programs like she runs, she takes kids out they like, she gets funded from I don't know where, she gets funded. She started out just her and her mom then they started to get funding from different organizations. They do positive things with Aboriginal youth to influence them and to let them know that their life isn't all what it seems all the time. There's more to life, in a positive way you know, doing everything in a positive way. Having that open mind and having that intuition to do good I guess." – Male 21 yrs old

"I guess, those people who use needles, prostitutes, we can open safe houses and do some good. Like I said, knowledge, bring it out there. Even making a class in schools. People gotta be more, like it wasn't even my kids you know with my sister, but they're still my relatives even if they weren't my relatives I would feel that I wouldn't want to pass that down to my children. People they just don't care. I don't know, refrain from alcohol and drugs like um, when I was on alcohol and drugs, I didn't care if was gonna get AIDS or whatever. I didn't think. Prostitutes they go out on the street and have sex for drugs, right. I think somehow it all goes back to the alcohol and drugs." – Male 18 yrs old

"I think that ah, well the free condoms, free information. As far as being able to reach them, what I feel, I assume actually that people are engaging in such risky behaviour, the majority of them are not accessing these kind of programs or these information at the health centres even if they are going, I'm unsure. I think that people should actually go out in the streets and tell them, look I know what you're doing, you know, continue doing it but do it safe. I think that there should be an understanding, and like especially for street workers, the way that I understand it, it's illegal to work the streets and have sex for sale on the streets as far as I understand it. The escort agency they should be giving safer alternatives. Someone should actually go out there into the nitty-gritty dirt part of it all and go out there and explain to these people. Someone who's addicted to crack cocaine and is selling their body on the street isn't going to go to the health centre to go get information and free condoms. They're too busy with their trade so to me, to reach them and to make a difference I think you actually have to go out there. Just putting up a poster in a health centre that they don't go to isn't going to do anything." – Female 24 yrs old

HIV Programming: Who/What/When/Where/How?

Cultural involvement was identified as key to helping youth; youth identified that programs should be run by people who have experience (someone who has HIV/AIDS) and which involves community members (Aboriginal healers, Elders and Spiritual leaders) as well as youth to be involved in planning and teaching about HIV/AIDS. They also indicated other key areas that will be further discussed below.

Youth involvement. Youth identified that they would be interested in participating in HIV prevention programming. They indicated that being a part of team was important, that getting involved on the streets is a good approach, that they could get through to people their own age, and that they were concerned about HIV. Here is was what three youth said when asked if they would like to be involved in HIV prevention :

"Well, it would depend on what it entailed, if it was a team going, if I could be part of a team that went out to actually go up to people on the street, I would love to do that. As far as the office paper shuffle, probably not. But as far as actually going out there to do something I would, hands on stuff." – Female 24 yrs old

> "Ya, I'd want to, I'd wanna like, I think it cause usually I'm not the person that would do this stuff but now I am thinking of it I'd like to help other people like realize and like cause I'm a teenager I could get through to people too, people our own age, make them take it seriously." – Female 15 yrs old

> "Because it's like ah, I'm only 19 but I've lived my life like I'm way older than that. I have a lot of experience on the streets and I can give them correct advice on what to do and not to do." - Male 19 yrs old

The role of culture. Youth identified that having access to healers, Aboriginals Elders, and spiritual leaders would be helpful for them when trying to make healthier life choices. They also identified that culture isn't a necessary component of programming

but that it would be helpful in the delivery of prevention programs. They also indicated that involvement with Smudging, Pow Wows, Round Dances, Sweat Lodges, and Traditional Medicines would be good. This section is better explained by the youth themselves:

> "Yes, I think that really would help to bridge the cultural gaps between health workers and the patients or people seeking out this kind of information. I think it would benefit a lot of people but I also think that again, people who really actually need this kind of education are not gonna go specifically to go and get this kind of help and I think that these people, like our Elders are people who care, people who care should go out..."- Female 24 yrs old

> "Well, since I got here, I never knew that we had creator. No one's ever taught me how to smudge, or go to sweats. So, I thought it was a good opportunity for me to come here cause now I'm more cultural and now I think my creator doesn't want this stuff for me. I could just talk to him whenever I want. I don't know, I believe in it a lot now. You could talk to an Elder, Elders really help and I never really talk to old people before but now I respect them a lot more. I always help my moshom here and help him get ready for the sweats build stuff, pick rocks for him and stuff. I don't know I really believe I could have a better life because of the information my Elder gives me." – Female 15 yrs old

> "It makes me think cause if I think of something hard enough, long enough and then I'll think through the Aboriginal way and somehow I'll end up thinking that it's a journey and I gotta experience everything, well not everything but mostly everything once and kind of affects my decisions right there because you say either do it or don't do it and just forget that it was there cause if I had a decision to make I'd say I had to go outside and beat someone up or something, if I look through to the Indigenous ways, it's kind of like, ya we do that all the time there's nothing new about that, I won't do it." – Male 19 yrs old

> "Ya, somewhat cause there are a lot of Native people who go to Round dances and participate fully in like Pow Wows and certain things cause they like to get together and enjoy company. So, I think that if there are culturally based things like maybe dances and then people talk at them or something, it would reach some people. Well, maybe the Elders because it's always good to listen to people that are older than you cause they have more experience and they've been through a lot, maybe something that you have been through and they could tell you about things the way they seen it." – Female 23 yrs old

> "Like I just got into learning my culture when I was 16 and I think we have one of the most beautiful cultures in this world. I don't know, I just got really into it, into like smudging, into dancing, into praying and to going to sweats. So, I don't

know, he's influenced me a lot just by him being Native and being a gay male and being so strong and then dying I guess...you know what I mean. My cultural background is Native and I don't want to see myself going downhill you know. So, my culture is a really big influence on me because I want to you know make my culture proud you know, make myself proud of myself." – Male 21 yrs old

"I think so, if it helps them. Like deal with the situation better, like if they find like a spiritual side in Aboriginal healing, I think so. A. I would think it would to a certain extent. I think that if you believe in that, you know, if you actually believe in a lot of the traditions, like Aboriginal culture. I think it would help you but if you don't believe in it, I don't know if that would really set you on a different path or guide you in you know that kind of way." – female 20 yrs old

Who? Youth indicated who they talked to about HIV/AIDS and who they were comfortable talking with, they identified who should be involved with HIV prevention and who should run the programs. They indicated that they would talk to family members, doctors, nurses, friends, counsellors, outreach workers, and teachers. When the youth were asked about who they would be comfortable talking to the day after they had engaged in risky behaviour, they indicated that they would talk to family, Elders, friends and most responded someone older because they have more experience.

"Oh, for me I would feel someone older like it would be someone older I'd feel comfortable talking to but if it was for like say a hard-head coming out from the streets then for him it would probably be someone his age because well, if he listens to someone older he won't take it so serious but if you are listening to a peer, to someone about your age then they'll listen but me I like the advice that Elders give me cause they're right 90% of the time. I don't feel comfortable talking about HIV with somebody just coming right off the streets. You know, like it's fine if they want to ask me something about it but if they want to ask me about personal details then I won't feel comfortable. I'd rather talk to the people that I do know and can trust." – Male 19 yrs old

Youth were also asked who they thought would run HIV prevention programs and who should be involved with them. They indicated that Elders, teachers, nurses, someone who has AIDS, someone who is HIV positive, people who have life experiences on the street and Native people should be running the programs. They also indicated that

well educated people, people who have HIV, people of different ages, Elders, peers, Health professionals, people who had been in jail, counsellors, psychologists, and researchers should be involved in programming.

> "Oh ya, I know this guy named [...]. He works at the Edmonton Native Healing Centre. He used to be really into drugs, gang violence, selling drugs, and sex but this guy has really changed his life around. He's being doing good for I'd say, I just met him, I have only known him for like a year or so. I think he's being doing good for more than 10-15 years, or not even he's only 25 what am I saying. About 10 years I'd say, he stopped when he was like to go on the right path you know. Before he was 16 so 15-16, so I'd say about 10 years. I don't know, he's a really positive influence, he's a really cool guy. He runs a program at the native healing centre. It's a youth council program. They go camping, he talks to them, he's not ashamed of what he's done in his life, he talks reality, he speaks the truth. Ya, people like that, that speak the truth that aren't ashamed of their lifestyle. They could like really teach some people. The best teachers for me were like the people I seen in inner-city, like bums and stuff cause I never want to be like that you know and it's sad to say but those were my ultimate role models and teachers in my life." – Male 21 yrs old

> "I think that someone should come in with their experience, like someone has it, maybe someone that has AIDS, someone that is HIV positive I think everyone should be involved but the people that are presenting should be like, you should have people of different ages, like maybe a 15 year old, 19 - 20 year olds, maybe 30s and Elders like have different people talk about how it's affected their lives and stuff, not just all one age group." – Female 15 yrs old

> "Yes. I think that ah maybe not necessarily I wouldn't see that they have to be run and directed by a Native person. But hey should be the person whose going and contacting and talking with the people needs to be Aboriginal because as I understand it, it's very hard for a non-native person to actually make a difference in the same way that an Aboriginal person would be able to make a difference in their lives." – Female 24 yrs old

Where and how? Youth were asked questions about where programs should be run and how they should be run. They indicated that HIV programs should be run in the following areas: inner-city/downtown, residential areas, youth centres, Aboriginal organizations, in the streets, where there are high rates of drug and alcohol abuse, schools, and more accessible.

"Um, for Aboriginals it should be Elders that are teaching here, ya teaching them about the HIV and AIDS and how it's affecting Aboriginal youth and it should be located around areas like Downtown because it's easier to access for street youth cause their the ones at the higher risk, instead of urban youth just on the outsides." – Male 19 yrs old.

"Um, somewhere where lot's of people know about like here, the Manawanna Centre is a place known for sober stuff, like sober dances, have little conferences like this but a little bit bigger with like everyone and like in Yellowknife it could be down in, or maybe youth centres, like there's youth centres usually everywhere. Like ours is Side Door and we don't have stuff like that, it's just all like fun and stuff but lot's of people would go to these places if there was stuff held like this, a youth centre, schools, but in school it's like oh it's just school but if you're out and it's your own time, you take the time to learn and ya youth centres are pretty good." – Female 15 yrs old

"Um, I think if you are reaching out to Natives it should have someone Native running them and you should, um, have them in residential communities, that's where all the people are. And I don't know, do something to like show them how easy it is to get AIDS and how easy it is to avoid them and what kind of choices there are in the world and what ones are the right ones." – Female 16 yrs old

"I think they should be run in more or less inner-city. I see a lot of poverty in inner city. A lot of people going downhill, a lot of people that I went to school with and I see them now and I'd never think they'd turn out like that cause we were like what when I started out in school cause I stayed at the same elementary school from kindergarden to grade six, and then I went to the same junior high and then Amiskwaciy from grade 10 to grade 12. So, I was like pretty much sheltered by those three schools all my life that's all I really knew. Inner-city, sacred heart is in inner-city and I like, now I see people that I went to school with and I don't know they're on the streets, and they're like you'd never expect that's what they were gonna turn out to be but it's never too late for them to change." – Male 21 yrs old.

The youth were also asked how HIV programs should be run and they indicated that they should be open more hours for better access, have fun activities, have teams that go out on the streets to give free condoms and information, have blood testing available, have educational material and information available, videos/documentaries, talks from people with life experiences, talking circles, have someone who is gay, youth, drug users, etc…to come and talk, peer education, a place to hang out, should have programs for all ages (including very the young), support services, having posters, going door to door,

mixing age groups, and they should include culture (which was already discussed in detailed).

"Um, how do I think that should work? It'll work a lot better because if like Amiskwaciy, like they're supposed to be all Native and that's all I see there. It's a Native program, it's just Natives there, like if you had an HIV prevention program happening around down here and it was open for a while or whatever like from morning to some time at night then people would go around there, they'd sit around, they'd find out information about HIV and kinda clue em into the world and what's happening around them." – Male 19 yrs old

"Like I don't know, do some kind of like jeopardy thing about AIDS and then just ask them questions about it and if they get it right they get a certain amount of points or something." – Male 17 yrs old

"That's why I was saying but you couldn't just have that, you'd have to again have a team to go out to give them free condoms and information and say you know what, it's going to take 5 minutes of your time can we do a blood test on you, where can we get a hold of you if your results come up. Some sort of an AIDS testing centre that's specifically maybe because I know in the aboriginal community there is tensions for our aboriginal youth to someone that is non-Native and say look I might have AIDS can I get tested. You know because it's just a purely uncomfortable situation." – Female 24 yrs old

"Um, maybe like films and documentaries. Go see a documentary and then talk about it. Cause like for me, when I see it and people are talking about their own, what happened, it's more real. I think they should have different varieties like for gay people maybe someone who is dying of AIDS and is gay. For Aboriginal, maybe Aboriginal youth or you know there's a lot of people that would talk about it, um. Um, I'd like to see them have a youth person, someone young talk about their own experiences because there's not that many people that are young that would do stuff like that and a lot of young people think 'well I'm young, I'm invincible and I can do whatever I want and nothing is gonna happen, nothings happened to me so far.'" – Female 23 yrs old

"Program should include our culture meaning smudging, praying, sweats, activities I don't know like exercise activities, getting healthy, influencing them to eat healthy, influencing them to stop doing drugs and you know drinking. Those kinds of prevention things, prevention program thingys. Placing not only young people with young people but I think placing young people with older people is a good thing. Like, having them all together you know instead of having just Aboriginal youth programs. Instead of like having these guest speakers come in, having it right there in front of your face reality everyday. Like, he's this old, he made these mistakes and I'm free, I can change my life you know what I mean." – Male 21 yrs old.

CHAPTER 4: Discussion and Conclusions

Overview of Findings

Questionnaires

Results from the survey portion of this study indicated that many Urban Aboriginal youth in Edmonton are at relatively high risk for HIV transmission. Specifically, in the present sample, many youth engaged in high-risk behaviours such as alcohol and drug use, unprotected sex, numerous sexual partners, sex trade work, increased sexual activities, needle use, and needle sharing. Youth in this study were also found to have some inaccurate information about HIV/AIDS (e.g., 42.4% either didn't know or said there was a vaccine for HIV and 25.4% either didn't know or said that Aboriginal people don't get HIV and AIDS). These findings are similar to other research with Native American drug users which found that many of their participants felt that HIV/AIDS could not happen to their community, often it is still considered a "white man's" disease.[100]

Of the youth surveyed, one hundred and four (88.1%) had more than one sexual partner (2 participants reported more than 50 partners). The majority of the youth had between 2-25 sexual partners (67.8%). Of the youth surveyed sixty-three (53.4%) had sex in the last month even though one hundred and one (85.6%) of youth have had vaginal sex. This is partly due to the fact that 19.5% of the youth were in a treatment facility. Of these youth, forty-eight (76.2%) had not used condoms consistently with regular sex partners, forty (63.5%) had not used condoms regularly with casual sex partners and twenty-one (33.3%) had not used condoms regularly when having sex for money and drugs. Data gathered about risk behaviour in a study of street involved youth

in Montreal also showed that youth are at increased risk for HIV transmission. Youth are having sex earlier than in the past, they often have multiple sexual partners, and have unprotected sex. Among youth aged 15 – 19 years old in 1994, 51% of females and 29% of males indicated never or only sometimes using a condom. For youth aged 20 –24 years in the same year, 53% of females and 44% of males reported never or only sometimes using a condom.[101] It is very clear that these youth are at very high risk of HIV transmission.

Also, important to note in the data is that there were some differences among males and females when asked why they weren't using condoms. More females (24) indicated that they were afraid to talk their partner or were embarrassed to talk to their partner about using condoms when compared to males (6) in the same categories. More females (23) also indicated that they hadn't used condoms because their partner didn't want to compared to males (6). More males (17) indicated they didn't use condoms because they were straight so safe from HIV compared to females (8), and males (16) also said that they weren't at risk for HIV compared to females (6).

Needle sharing for injection drugs among these youth was evident in 8.5% of the sample. A portion of the youth indicated that they had shared a needle for a tattoo and shared a needle for a body piercing (7.6% and 6.8% respectively). Of the youth surveyed, five (4.2%) reported using drugs in the last month. Of the youth that had, three (60%) had used a needle after someone else and three (60%) had used a needle before someone else used it. Two (40%) youth also had multiple drug use partners use a needle before them (20% had 3-5 and 20% had 6-10). These youth also indicated that they were not always cleaning their needles before re-using them (60% said they didn't always

clean needles before re-using them). It is obvious that these youth are at increased risk for HIV transmission.

Correlational analyses showed the more sources of HIV-related information that youth identified, the more accurate they were in their HIV knowledge. However, accurate HIV knowledge did not seem to be a protective factor in relation to sexual risk behaviours among these youth. In fact, youth in this study who had high HIV knowledge accuracy scores also tended to engage in more sexual activity. These findings replicate other research on adolescents[102], which found that knowledge about HIV/AIDS and prevention of HIV was unrelated to change in high risk behaviours. Another study conducted on AIDS knowledge, concerns and behavioural changes obtained similar results.[103] They found that youth had good knowledge about AIDS but most continued high risk behaviours. A disconcerting finding in the present study was that youth who engaged in more sexual activity also reported more reasons for not using condoms. Youth involved in needle sharing had more reasons for not using condoms. A study done on interventions for adolescents and young adults found that only 10% of youth increase their use of condoms due to a concern about HIV and that these youth are more likely to have multiple sex partners.[104]

Results from the logistic regression analysis indicated that male aboriginal youth were less likely to go for an HIV test as compared to females (females represented 62.5% of those who had gone for an HIV test and males made up the remaining 37.5%). However, positive predictors of HIV testing status included age, reasons for not using condoms, and accuracy of HIV knowledge. These results are encouraging and suggest that while high levels of HIV knowledge are associated with greater risk behaviours,

accurate knowledge about HIV nevertheless predicts HIV testing status. Additional findings were that young aboriginals who reported more reasons for not using condoms were also more likely to get tested for HIV. This may be due to the realization that poor condom use puts youth at risk for many sexual transmitted infections as well as HIV. Perhaps those youth who felt they were using condoms more consistently felt that they did not need to go for an HIV test. Both these scenarios are frightening in that youth are still at risk of HIV infection regardless of the reasoning behind going or not going for an HIV test due to risk behaviours.

Interviews

The interview participants indicated that HIV is a concern for Aboriginal youth and might be more so for them when compared to the rest of the Canadian population. A study done on HIV Prevention Education with Native American Youth found that Native youth suffer more from poverty, alcohol abuse, sexual abuse, emotional abuse and physical abuse than the general population.[105] Another study, Preventing HIV/AIDS in Adolescents, concluded that youth who are marginalized, poorly educated, have few employment skills, come from abusive families and who grow up in violent communities are at higher risk for HIV infection.[106]

Interview participants confirmed many of the findings observed in the questionnaire part of the study: they reported that many Aboriginal youth are involved in risky behaviours including impaired judgement related to drinking and drug use, pregnancy, unprotected sex, street involvement (street fights, gangs and prostitution), unfaithfulness of sexual partners, increased risk when living on reserve because of high levels of sexual promiscuity, not thinking about the consequences of their actions,

sleeping with people they don't know, and issues of access to services were identified as issues. All of these issues are consistent with results of other studies. The issues discussed are similar to other studies with Aboriginal youth. One study found that alcohol use, loneliness, and isolation led to unsafe sexual behaviour. They also found that high-risk behaviours occur frequently in urban Aboriginal populations. The researchers in this study suggest that increased personal coping skills, reinforced community action, and reorientation of services would lead to better HIV prevention.[107] Another study found that Aboriginal youth are at increased risk of HIV transmission because they are having sex at a younger age, have more sex partners (with people from reservation communities and non-reservation communities), are not using condoms consistently, and are abusing drugs and alcohol.[108] Finally, one study with Aboriginal peoples found that when youth move away from home, they often lose contact with family and become involved in substance abuse, street crime (gangs) and sex trade work in order to survive.[109] One other study with urban youth identified that substance abuse is a major concern because of its effects on high-risk sexual behaviours. The researchers identified that urban youth are vulnerable to unemployment, homelessness, dropping out of school, drug and alcohol use, sexual exploitation, marginalization and separation from family. Health related issues are often not a priority over such things as food, shelter and drug relief.[110]

Cultural involvement was identified as an important key to helping youth. Specifically, interviewees stated that HIV prevention programs should be run by people who have experience (e.g., someone who has HIV/AIDS) and that programs should involve both community members (Aboriginal healers, Elders and Spiritual leaders) and

youth in the planning and teaching about HIV/AIDS. The literature indicates that culture is an integral part of an HIV prevention program that will be effective for Native people (Appendix 5). For example, a study done on Aboriginal peoples indicated that prevention programs should be holistic, positive, empowering, culturally sensitive, accessible, community-based, linked with existing AIDS activities, culturally transportable, and ongoing.[111] Another study indicated that healing ceremonies, talking circles, sweat lodges, elders, traditional medicine, cultural values, and beliefs are important in the development of HIV prevention.[112] Also, a study done with Native American drug users found that HIV prevention should be culturally sensitive and should include traditional values and language. The researchers also stated that such values have been lost over the years but that traditional ways and healing ceremonies could be effective in reducing HIV/AIDS risk behaviours.[113]

The role of culture. Traditional medicine refers to the health beliefs and practices of Aboriginal people before the development and expansion of Western medicine. Aboriginal people view medicine as a way of life that includes curative means and psychological factors involved in healing.[114]

For Aboriginal people, the 'Spirit and Creator' are vital parts of the traditional lifestyle. The Spirit is to be respected and treated properly or it is thought that it will take revenge. The Creator is thought to be the giver of nature and life. Aboriginal people believe that everything in nature is equal and that everything necessary to survive comes from nature. The 'Spirit' is the basis for the Aboriginal peoples' holistic view on health. The mind, body, emotions, and spirit exist in harmony with one another.[115]

The four components affect each other and are affected by external sources such

as relationships with others, family, community and environment. Aboriginal peoples believe that it takes a balance of all of these factors to create a healthy individual.[116]

The Medicine Wheel is an important part of Aboriginal peoples' Traditional beliefs. The Medicine Wheel has been used for thousands of years in a holistic approach to living in harmony with Mother Earth. The Medicine wheel has four directions, four colours, four elements, and four aspects: mental, physical, emotional, and spiritual. The four colours of the Medicine Wheel represent the four races: white, red, yellow and black people of Mother Earth. The four directions are North, South, East and West. The four elements are wind, water, earth and fire. There are also four spirit keepers: the wolf, bear, buffalo, and eagle.[117] Figure 4.1 gives an example of a medicine wheel.

Figure 4.1 Medicine Wheel

Source: http://www.voiceofwomen.com/VOW2_410/decals.html#anchor95867

Traditional healers refer to those who are knowledgeable about remedies and treatments, who are concerned with the balance of the body, mind, spirit and emotions (again back to the medicine wheel). Traditional healers are believed to have an energy flowing through them from which they obtain their knowledge. The medicine and ceremonies they give are sacred and Aboriginal people believe that medicines are gifts from the Creator.[118]

Plants are used to make salves, teas, and other medicines used in healing ceremonies such as fasting, prayers, dances, feasts, pipe ceremonies, smudges and sweat lodges. Sweat lodges are common for Aboriginal peoples. People sit in a tent around a

pit of hot rocks. The healer chants to purify and request healing from the Great Spirit. This brings the individual in need closer to the spirit world. Talking circles are also a vital part of the Aboriginal belief system. It is here that counselling, advice, support and education are obtained.[119]

In table 4.1, Traditional Medicine is compared to Western Medicine and the differences between the two areas of thought. A discussion of the combination of Traditional and Western medicine is necessary in order to develop a strategy that will be effective for the uniqueness of Aboriginal people.

Table 4.1

Comparison between Traditional and Western Medicine

Traditional Medicine	Western Medicine
Holistic approach to health, medicine and spirituality are connected	Analytical approach to health, medicine totally separated from spirituality
Every individual is unique and may have a different spiritual path, a remedy that is successful with one may not be with another	Every person is essentially the same, for ailment X, use treatment Y
Patients are active participants in their treatment and are taught to self-monitor their bodies	Physician prescribes treatment and patient follows advice, regular checkups are required to ensure normality
Medicine is sacred, a gift to be shared	Medicine is a business, the doctor and the medical industry profit.
Physical, spiritual and psychological aspects are integrated into the treatment	Therapies administered one at a time
Emphasis on disease prevention	Emphasis on disease, treatment
Traditional healers are accountable to the Creator and the people they serve.	Physicians are accountable to the Government and to their professional Association

Source: Ketting, L. Indigenous Traditional Medicine and HIV/AIDS.

Combining Traditional and Western medicine by having Elders and healers deliver technically appropriate home care, dispense symptomatic care, treat opportunistic infections and counsel young people about control of HIV in areas where there is too

much western influence or where health resources are scarce is one way to incorporate aspects of both approaches. Young people need to be educated on HIV/AIDS prevention. Traditional healers can deliver more than just the typical education programs, they can actively influence the community's views and attitudes by including social and cultural dimensions in their counselling and teachings. Traditional healers and Elders are knowledgeable in cultural background and are sensitive to the needs of the Aboriginal peoples.[120]

Discussion

Despite reporting being exposed to many sources of information about HIV and having relatively accurate knowledge about HIV, urban Aboriginal youth in this study still engaged in high risk behaviours for HIV infection. Poor condom use, increased sexual activity, needle use/sharing, numerous sexual partners, and sexual behaviour put the youth at increased risk for HIV transmission.

Prevention is the only defence against HIV/AIDS. Conventional HIV prevention programs may not be effective within an urban Aboriginal adolescent population. Focus needs to be re-directed to the unique needs of this population. They are at high-risk for HIV infection due to high-risk behaviours such as IDU, MSM, unprotected sex, multiple sexual partners or a combination of risk factors. HIV infection has been decreasing for the general Canadian population. However, this is not the case for Aboriginal peoples. During a four-year period, 1996 to 1999, HIV infection among Aboriginal populations had increased by 91%.[121] This statistic makes it evident that the prevention strategies that currently exist are not effective for Aboriginal peoples. Important to remember is that Aboriginal people are unique in their traditions, values, beliefs and attitudes. A

prevention strategy that considers these factors would be beneficial in order to deliver effective HIV education to this population.

A review of the literature on HIV prevention in youth, specifically Aboriginal youth, found that knowledge alone does not change risk behaviour, misconceptions still exist about HIV/AIDS (25.4% of the youth surveyed said they either didn't know or said that Aboriginal people don't get HIV and AIDS), access to services helps to reduce risk behaviour, street involvement is a major factor for this group, alcohol and drug use are still a pressing issue for these youth, skill building helps to reduce risk behaviour, theory-based interventions that focus on specific needs must be developed, working at the community level leads to behaviour change, cultural sensitivity must be considered when developing HIV prevention strategies including traditional values and beliefs, multi-component approaches to HIV prevention need to be developed, innovative prevention strategies are needed to reach these youth, peer-based initiatives seem to work well with these youth, and the youth must be involved in HIV prevention strategies from developmental stages to implementation of programming.

It is important to understand that issues of trust and credibility often hinder the effectiveness of HIV prevention programs. Prevention strategies that are delivered by Aboriginal people to Aboriginal youth may be more effective in reducing HIV risk behaviours. However, the number of Aboriginal workers is low and those that are available are over-extended and are at risk of "burnout". Prevention models based on the Health Belief Model and the Theory of Reasoned Action are unlikely to be successful. Combining theses theories and models with others like Social Action theory and Emergent Change Methodology will lead to better HIV prevention programs. Innovative,

multi-component, culturally sensitive HIV prevention programs developed by Aboriginal people for Aboriginal people are likely to be more effective.

Aboriginal HIV prevention programs need to be developed with the specific needs of the population in mind. No two groups are the same and the prevention measures should reflect the unique characteristics of the target population. In order for prevention strategies to be successful, Aboriginal people need to be involved with development, implementation and evaluation of programs.

School-based prevention programs do not seem to be effective for Aboriginal youth. This population is highly marginalized and they are subject to many high-risk factors such as street involvement, homelessness, IDU, and sex trade. This group of youth is subject to more than just one risk factor and often fall into all risk categories simultaneously. Often, Aboriginal youth dropout of school and therefore, would not benefit from School-based prevention strategies. In order to target the most at risk Aboriginal youth population, prevention strategies need to be developed that focus on their specific needs.

Aboriginal youth need to understand that they are at risk and are not invulnerable to HIV infection. Knowledge about HIV and the risk behaviours associated with HIV infection must be offered to this group. Youth need to develop skills that will help them make informed healthy choices, reduce risk behaviours, and negotiate better outcomes. In order to do this, self-esteem issues must be addressed, barriers addressed, accessibility must be improved upon, support services increased, and role models available.

Recommendations for Program Development

An HIV education/prevention program must be culturally competent and sensitive

to aboriginal youths' needs. Health workers must understand and respect cultural diversity. They must also acknowledge that Aboriginal youth's culture may affect their beliefs, attitudes, values, and behaviour. Culture may also influence the type of prevention programs that youth will participate in. For example, having Elders/healers involved with HIV education may have more influence on youth. The presence of cultural components in an HIV prevention program may not be effective for some youth (e.g., one interview participant stated that not all aboriginal youth are traditional and may not benefit from having a cultural component in an HIV prevention program).

Youth indicated that there should be Aboriginal persons living with HIV/AIDS delivering discussions that are culturally relevant and incorporate aspects of the youths lives into the program. One interview participant said that using culture might reach more youth. The wisdom of Elders was also indicated as important because they had been through life and had experienced more. Another participant said that if the youth believed in their culture it could set them on a different path guiding them away from risk behaviour. Another interview participant said that Cultural content in an HIV prevention program should be optional, if a youth does not want to participate in something, they should not have to.

Development of prevention programs should be community-based as well as participatory. Aboriginal youth and communities must be involved from designing to implementing HIV prevention programming. It is very important that they are involved in identifying their needs and in planning programs. This will give them the opportunity to have an active say in the workings of the program, to make vital decisions about what is included, what is excluded and who delivers programming. Trust, respect and

understanding are important factors that must be developed and nurtured between youth, health workers, and organizations in order for collaboration to be successful. So, youth should have an active role in determining what kind of program is developed, they should be involved with deciding where the program will run, when it will occur, what it will include and how it will operate. The opinions of these youth are extremely valuable because they are the link between organizations and other youth. The youth in this study indicated that programs should run where they are easily accessible such as downtown and the North side (54.2% identified as living in these two areas). The youth said that Aboriginal people who have experience with HIV/AIDS should be running the program and they felt that Aboriginal people living with HIV/AIDS would be very helpful to teach Aboriginal youth about the disease along with the issues that surround it. So, HIV prevention programming for urban Aboriginal youth should start with the youth and involve community members that will be able to provide valuable information about HIV/AIDS prevention.

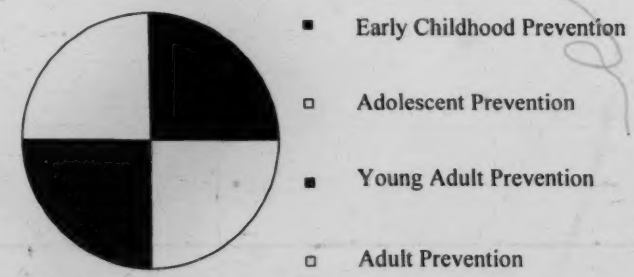
Partnerships among existing HIV/AIDS organizations and programs are essential to ensure improved access to services. Collaboration with other Aboriginal services is important in maintaining comprehensive programming for youth, as well as ensuring that services are effective and relevant. Having access to health services and HIV programs may reduce risk among youth. Knowing where to get tested for HIV is an important step in HIV prevention. Therefore, communication between existing services is important for the success of community-based programming. This theme reinforces the need for many groups within the Aboriginal community to come together to share in the knowledge and experience of those working in the HIV/ AIDS field and/or those who are affected or

infected by HIV/AIDS. Working together communities can be strong and healthy. Strengthening ties to those in the non-Aboriginal community whose hard work and dedication to the cause of HIV/AIDS can further enhance understanding of the disease and assist in the need for better treatment and prevention.[122]

Funding is always an important issue for any program. Therefore, it is necessary to secure funding for HIV prevention programming that specifically targets Aboriginal youth. This endeavour should be undertaken by the youth and their community, which will ensure involvement in the process of developing prevention programs. This enables the youth, empowers them and gives them a sense of ownership. They have a vested interest in the project. Some suggestions for funding sources include: UMAYCI (Urban Multi-Purpose Aboriginal Youth Centre's Initiative), Northern Links, Treaty 8 in Alberta, NAHO, CIHR, and the AFN.

HIV prevention programs should be age specific, take into account the groups' level of comprehension and be suitable to the education level of the youth. For example, prevention information that is targeted to eight year olds would not be the same for eighteen year olds. Content must be relevant to the group that you are targeting. A possible prevention strategy for youth who are not yet sexual active (for example, for 8-12 year olds) is to use theatre to convey messages about sex and condoms. There should be different progressive stages in HIV prevention programs. Data gathered about Native youth in 8th & 9th grade and another study on homeless youth indicated that developmentally appropriate programming must be provided. Age differentiation must be considered when planning HIV prevention programs.[123] [124] These developmental stages could be based on the Medicine Wheel which has four stages of life.

Figure 4.2 Medicine Wheel Stages of HIV Prevention



HIV prevention strategies that start with younger children and continue through adulthood will ensure that prevention messages and strategies are effective. Many studies have indicated that prevention strategies must be sustainable and ongoing.[124] This approach also holds true in Traditional belief systems (e.g., Medicine Wheel stages).

Accurate information must be compiled and must be culturally specific. There have been misconceptions in the past, as well as currently, that HIV is a "white, gay man's" disease. Therefore, education materials must be relevant, culturally competent, include language that is understandable, and age specific. Information from multiple sources must raise awareness and knowledge, as well as dispel myths and misconceptions about HIV/AIDS. HIV prevention strategies should also discuss other STIs, how they are transmitted, how they are linked with HIV, how they are (if at all) treated and how they are prevented.

Programming should include peer educators, role models, counselling, workshops and presentations that keep the youth interested and actively participating in the sessions. Prevention strategies must be ongoing. 'Flash in the pan' programs don't work. Aboriginal communities have had 'band-aid' programs placed upon them too many times in the past, it is well known that they are ineffective. Therefore, continuous

programming that empowers youth will be more effective in reducing risk behaviours leading to HIV. Youth (32.2%) identified that condoms don't feel good and that is why they weren't using them. Youth also indicated that talking about using condoms was problematic, 25.4% said that they didn't use condoms because they were afraid or embarrassed to talk to their partners and 24.6% said that their partners didn't want to use condoms. Also, important to note are the gender differences among males and females when developing prevention programs. For example, 39.3% of females said they didn't use condoms because they were afraid or embarrassed to talk to there partner compared to only 10.5% for males. Also, 25.4% of the youth said (or didn't know) that Aboriginal people don't get HIV or AIDS. A possible prevention strategy for these kinds of beliefs is to set-up group workshops with other youth that focuses on increasing perception of risk, emphasizes safer sex behaviour, increases self-esteem, and enhances communication skills. Discussion should revolve around why it is difficult to talk about using condoms, and developing skills to make using condoms easier (e.g., practice negotiation skills about condom use). Free condoms should be made available during this type of session.

Individual counselling and group counselling should also be available in order to discuss issues about personal factors affecting choices, peer pressure, risk behaviours, condom use, skills building, support services, health services (where to get HIV tested), needle use and exchange, as well as providing a safe place for youth to hang out and talk about their issues, beliefs, and values.

Multi-component prevention strategies will incorporate many ways to help youth prevent HIV transmission. Some of these may include theatre/role playing, internet, peer education/role models, harm reduction, free condoms, testing sites, counselling,

presentations/workshops, needle exchange, use of a hotline, media (e.g., radio, tv, newspapers, magazines, etc…), familial involvement and cultural venues such as talking circles, sweatlodges, pipe ceremonies, smudging, traditional medicine, story telling, pow wows, round dances, guidance from Elders, etc… A program that offers a combination of these types of approaches will reach youth on many levels ensuring that HIV prevention messages reach urban Aboriginal youth.

The specific characteristics of an HIV prevention program must be developed by the youth and the organizations involved in the project. Future guidance will be made available as the author will endeavour to work with the youth and organizations to develop HIV prevention programming that is appropriate.

Implications for Future Research

More research needs to be done in order to obtain more information about prevention strategies. A program should be developed that incorporates the information from this study and the outcome researched to determine the best practice model that should be used for Aboriginal youth. A further in depth study would be beneficial for future endeavours to improve the prevention programs that are provided to Aboriginal youth. An innovative, multi-disciplinary approach to HIV/AIDS prevention must be developed in order to prevent the spread of this disease in Aboriginal youth and their communities. A report for participating organizations (and those that could not participate) and Health Canada will be written by the author and presented. Future endeavours will include development of a program that includes the youth in all stages of program development.

Limitations

All research has limitations and this research project is no exception. There were some key areas that were of concern during the research process. Some of the organizations were reluctant to participate based on past experiences with researchers. There were issues of trust and credibility that arose. It was sometimes a struggle to convince them that this research project would be beneficial to them and their youth. It was conveyed that this research project was not going to only use them and provide nothing in return. This was a commitment taken seriously by the author.

After helping to launch this project, HIV Edmonton greatly reduced its involvement when they laid-off their youth representative who was involved with the research project. This individual had been involved with administering the questionnaires and conducting interviews along with the author. However, after the first three interviews, she was let go from HIV Edmonton. The organization did not replace her on the project.

Another issue was that five of the ten organizations that had agreed to participate in the project decided that they could not distribute the questionnaires. Thus, there were only 145 questionnaires distributed as opposed to the planned 195. Also, access to the youth was, at times, difficult due to their lifestyles and the schedules of the organization representatives. This in turn caused data collection to take longer than expected (six months as opposed to three).

Conclusions

Few studies have been conducted on HIV related knowledge and behaviours among Aboriginal youth. Therefore, it is difficult to generalize data for all Aboriginal

peoples. Data is only available from those people who have come forward and have been tested. There are many untested and unreported cases of HIV/AIDS in Aboriginal people. It is difficult to obtain data when it does not exist because of poor collecting techniques of testing programs. However, the evidence that is available suggests that Aboriginal people are infected younger than non-Aboriginal people, that risk-taking behaviour is a large factor in the transmission of HIV, and that the HIV/AIDS epidemic is not slowing down among Aboriginal people.

Prevention is the number one method of controlling the HIV/AIDS epidemic. For prevention to be effective within Aboriginal communities traditional approaches to wellness need to be recognized and incorporated into modern delivery of prevention programs. Programs should be developed with the specific needs of the community in mind. Not every community is the same, therefore no two prevention strategies are going to be the same. Education is the primary weapon against the onset of HIV/AIDS transmission. It is important to educate Aboriginal communities (this includes youth, students, adults and Elders) on the risk-behaviours associated with HIV transmission. Aboriginal people and communities need to be involved in every aspect of HIV/AIDS education, prevention, care, treatment and support for successful prevention of HIV transmission to prevail. As individuals, we need to educate ourselves about HIV/AIDS, find out what programs are available, make good choices, determine risk-behaviour, and talk about safer sex. As families, we need to care for our families, encourage children to ask questions, teach children about the risks, and support and care for family members living with HIV/AIDS. As communities, we need to give information on HIV/AIDS, incorporate traditional beliefs into treatment strategies, organize workshops, have

condoms available, encourage HIV testing, be understanding and supportive of people living with HIV/AIDS, and provide accessible health care services.

HIV/AIDS prevention programming needs to be developed that incorporates many aspects of Aboriginal culture. Youth need to be involved with the planning, development, and implementation of prevention programming. Community members such as Elders and healers need to be involved from the beginning to guide the youth and HIV/AIDS professionals to ensure that programs are developed properly. The present study indicates that more emphasis should be placed on youth who are involved with street work as they appear to be practicing unsafe sexual behaviours. HIV testing must be promoted to ensure that the spread of HIV is decreased. Most youth in this study had never gone for an HIV test but felt they were HIV negative. Education and sources of information are key to having accurate knowledge about HIV/AIDS. However, this does not seem to affect the risk-taking behaviours (e.g., poor condom use) of this group. Therefore, more intensive prevention programming is needed to reach this target group.

More research needs to be done in order to obtain better data on HIV/AIDS epidemiology and HIV testing among Aboriginal people. Better data would allow Aboriginal organizations on HIV/AIDS to guide prevention and control the spread of HIV/AIDS. It is surprising that there isn't more research/data available on HIV/AIDS in Aboriginal people. A further in depth study of HIV/AIDS will be beneficial in future endeavours to improve the health care that is provided to Native people. Prevention of HIV transmission is more than just stopping the spread of a disease. It's the preserving of the past, maintaining the present and ensuring the future of Aboriginal peoples in Canada.

Endnotes

(please note that full references are available starting on page 97)

[1] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV/AIDS Among Aboriginal Persons in Canada Remains a Pressing Issue.

[2] Bowie et al. Implications of the Canada Youth and AIDS Study for Health Care Providers.

[3] Janssen. AIDS crisis in FNs. *The First Perspective.*

[4] Furey. High AIDS risk plagues Aboriginal communities. *The First Perspective.*

[5] AIDS in Aboriginal Communities. *The Indigenous Times.*

[6] Health Canada. Population and Public Health Branch (formerly LCDC). HIV/AIDS.

[7] Ibid.

[8] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV Infection Reporting in Canada.

[9] Health Canada. HIV/AID Epi Updates, Centre for Infectious Disease Prevention and Control. Prevalent HIV Infections in Canada: Up to One-Third may not be Diagnosed.

[10] Health Canada. HIV and AIDS in Canada, Surveillance Report to June 30, 2003.

[11] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. AIDS and HIV in Canada.

[12] Ibid.

[13] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. Positive HIV Test Reports in Canada.

[14] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV Infection Reporting in Canada.

[15] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV and AIDS among Women in Canada.

[16] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV and AIDS Among Youth in Canada.

[17] Ibid.

[18] Ibid.

[19] Ibid.

[20] Bowie et al. Implications of the Canada Youth and AIDS Study for Health Care Providers.

[21] Ibid.

[22] Alberta Health and Wellness. HIV in Alberta 1998/99- 2002. Alberta Health Strategy.

[23] Health Canada. Medical Services Branch. Research on HIV/AIDS in Aboriginal People a Background Paper.

[24] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV/AIDS Among Aboriginal Persons in Canada Remains a Pressing Issue.

[25] Ibid.

[26] Ibid.

[27] Janssen. AIDS crisis in FNs. *The First Perspective.*

[28] McLeod. HIV/AIDS and Aboriginal People in Canada: A discussion Paper on the Capacity of the Community to Respond.

[29] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV/AIDS Among Aboriginal Persons in Canada Remains a Pressing Issue.

[30] Ibid.

[31] The author appreciatively acknowledges the assistance of Marlene Dorgan, University of Alberta Library Services, for her aid in performing the searches.

[32] Wardrop. A Framework for Health Promotion…A Framework for AIDS.

[33] Ibid.

[34] Ibid.

[35] Ibid.

[36] Ibid.

[37] Ibid.

[38] Ibid.

[39] Ibid.

[40] Otis, Levy, Drouin. Sexual-Health Education and Promotion.

[41] Airhihenbuwa, Obregon. A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS.

[42] Brown et al. HIV Prevention for Adolescents: Utility of the Health Belief Model.

[43] Bradley-Springer. The Complex Realities of Primary Prevention for HIV Infection in a "Just do it" World.

[44] Airhihenbuwa, Obregon. A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS.

[45] Brown et al. HIV Prevention for Adolescents: Utility of the Health Belief Model.

[46] Ibid.

[47] Ibid.

[48] Ibid.

[49] Airhihenbuwa, Obregon. A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS.

[50] Brown et al. HIV Prevention for Adolescents: Utility of the Health Belief Model.

[51] Ibid.

[52] Otis, Levy, Drouin. Sexual-Health Education and Promotion.

[53] Airhihenbuwa, Obregon. A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS.

[54] Ibid.

[55] Bradley-Springer. The Complex Realities of Primary Prevention for HIV Infection in a "Just do it" World.

[56] Otis, Levy, Drouin. Sexual-Health Education and Promotion.

[57] Airhihenbuwa, Obregon. A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS.

[58] Otis, Levy, Drouin. Sexual-Health Education and Promotion.

[59] Bradley-Springer. The Complex Realities of Primary Prevention for HIV Infection in a "Just do it" World.

[60] Futterman et al. HIV and AIDS in Adolescents.

[61] Bradley-Springer. The Complex Realities of Primary Prevention for HIV Infection in a "Just do it" World.

[62] Prochaska et al. The Transtheoretical Model of Change and HIV Prevention: A Review.

[63] Otis, Levy, Drouin. Sexual-Health Education and Promotion.

[64] Airhihenbuwa, Obregon. A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS.

[65] Otis, Levy, Drouin. Sexual-Health Education and Promotion.

[66] Price, N. The performance of social marketing in reaching the poor and vulnerable in AIDS control programmes.

[67] Aggleton P. Behavior Change Communication Strategies.

[68] Airhihenbuwa, Obregon. A Critical Assessment of Theories/Models Used in Health Communication for HIV/AIDS.

[69] Otis, Levy, Drouin. Sexual-Health Education and Promotion.

[70] Ibid.

[71] Ibid.

[72] Ibid.

[73] Ibid.

[74] Ibid.

[75] Ibid.

[76] Wright, K. HIV and Adolescents.

[77] Ibid.

[78] Marshall and Rossman. Designing Qualitative Research.

[79] Ibid.

[80] Ibid.

[81] Lindsey and McGuinness. Significant elements of community involvement in participatory action research: evidence from a community project.

[82] Minkler. Using Participatory Action Research to Build Health Communities.

[83] Ibid.

[84] Lindsey and McGuinness. Significant elements of community involvement in participatory action research: evidence from a community project.

[85] Allman, Myers and Cockerill. Concepts, Definitions and Models for Community-Based HIV Prevention Research in Canada.

[86] Ibid.

[87] Ibid.

[88] Ibid.

[89] Health Canada. Community-Based Research Scholarships: Guide for Applicants.

[90] HIV Edmonton. http://www.hivedmonton.com/main.html

[91] Ibid.

[92] Ibid.

[93] Ibid.

[94] Ibid.

[95] Ibid.

[96] Ibid.

[97] Ibid.

[98] Ibid.

[99] Darke, S., et al. The Reliability and validity of a scale to measure HIV risk taking behaviour among injection drug users.

[100] Baldwin, J.A., *et al.* HIV/AIDS Risks Among Native American Drug Users: Key Findings from Focus Group Interviews and Implications for Intervention Strategies.

[101] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV and AIDS Among Youth in Canada.

[102] Stiffman, A.R., *et al.* Person and Environment in HIV Risk Behavior Change Between Adolescence and Young Adulthood.

[103] Sikand, A., *et al.* AIDS Knowledge, Concerns, and Behavioral Changes Among Inner-City High School Students.

[104] Rotheram-Borus, M.J., *et al.* A Brief Intervention for Adolescents and Young Adults.

[105] Marquez, C. and Whiterabbit, R. HIV Prevention Education with Native American Youth.

[106] National Commission on AIDS. Preventing HIV/AIDS in Adolescents.

[107] Brassard, P., *et al.* Needs Assessment for an Urban Native HIV an and AIDS Prevention Progam.

[108] Hall, R.L. Assessment of AIDS Knowledge, Attitudes, Behaviors, and Risk Level of Northwestern American Indians.

[109] McLeod, C. Designing Qualitative Research.

[110] Sullivan, R.T. The Challenge of HIV Prevention among High-Risk Adolescents,

[111] Tseng, A.L. Anonymous HIV Testing in the Canadian Aboriginal Population.

[112] Ketting, L. Indigenous Traditional Medicine and HIV/AIDS.

[113] Baldwin, J.A. HIV/AIDS Risks Among Native American Drug Users: Key Findings from Focus Group Interviews and Implications for Intervention Strategies.

[114] Ibid.

[115] Ibid.

[116] Ibid.

[117] Ibid.

[118] Ibid.

[119] Ibid.

[120] Ibid.

[121] Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV/AIDS Among Aboriginal Persons in Canada Remains a Pressing Issue.

[122] Baldwin, J.A., and Rolf, J.E. Developing Culturally Sensitive HIV/AIDS and Substance Abuse Prevention Curricula for Native American Youth

[123] Clatts, M.C. *et al.* Correlates and Distribution of HIV Risk Behaviors among Homeless Youths in New York City: Implications for Prevention and Policy.

[124] Hein, K. Fighting AIDS in Adolescents.

References

Aboriginal Nurses Association of Canada. HIV/AIDS and its Impact on Aboriginal Women in Canada. March 1996.

Aggleton, P. Behavior Change Communication Strategies. *AIDS Education and Prevention.* 1997; 9(2): 111-123.

AIDS in Aboriginal Communites. *The Indigenous Times* 2001; 9(1): 10.

Airhihenbuwas, C.O., and Obregon, R. A Critical Assessment of Theories/Models Used In Health Communication for HIV/AIDS. *Journal of Health Communication* 2000; 5(suppl.): 5-15.

Alberta Health. Strengthening the Circle: What Aboriginal Albertans Say about their Health. 1995.

Allman, D., Myers, T., and Cockerill, R. Concepts, Definitions and Models for Community-Based HIV Prevention Research in Canada. Toronto, ON. University of Toronto. 1997.

Ashworth, C.S., DuRant, R.H., Newman, C., and Gaillard, G. An Evaluation of a School-Based AIDS/HIV Education Program for High School Students. *Journal of Adolescent Health.* 1992; 13: 582-588.

Assembly of First Nations. AFN First Nations HIV/AIDS Resilience Project: Key Findings of the Pilot Study. June 1998.

Auslander, W.F., Slonim-Nevo, V., and Sherraden, M. HIV Prevention for Youths in Independent Living Programs: Expanding Life Options. *Child Welfare* 1998; 77(2): 208-221.

Baldwin, J.A., Trotter, R.T., Martinez, D., *et al.* HIV/AIDS Risks Among Native American Drug Users: Key Findings from Focus Group Interviews and Implications for Intervention Strategies. *AIDS Education and Prevention* 1999;11(4): 279-292.

Baldwin, J.A., and Rolf, J.E. Developing Culturally Sensitive HIV/AIDS and Substance Abuse Prevention Curricula for Native American Youth. *Journal of School Health*1996; 66(9):322-327.

Blake, S.M., Ledsky, R., Lehman, T., *et al.* Preventing Sexual Risk Behaviors Among Gay, Lesbian, and Bisexual Adolescents: The Benefits of Gay-Sensitive HIV Instruction in Schools. *American Journal of Public Health* 2001; 91(6): 940-946.

Bowie, W.R., Warren, W.K., Fisher, W.A., *et al.* Implications of the Canada Youth and AIDS Study for health care providers. *Canadian Medical Association Journal* 1990; 143(8):713-716.

Bradley-Springer, L.A. The Complex Realities of Primary Prevention for HIV Infection in a "Just do it" World. *Nursing Clinics of North America* 1999; 34(1): 49-70.

Brassard, P., Smeja, C., and Valverde, C. Needs Assessment for an Urban Native HIV an and AIDS Prevention Program. *AIDS Education and Prevention* 1996; 8(4): 343-351.

Birse, E., Shokoples, S., and Houston, S. Demographic and Clinical Features of Aboriginal and Non-Aboriginal Patients with HIV Infection in Northern Alberta. *Canadian Journal of Infectious Disorders* 1999; 10(suppl. B): 66B.

Brown, L.K., Barone, V.J., Fritz, G.K., *et al.* AIDS Education: The Rhode Island Experience. *Health Education Quarterly* 1991; 18(2): 195-206.

Brown, L.K., DiClemente, R.J., and Reynolds, L.A. HIV Prevention for Adolescents: Utility of the Health Belief Model. *AIDS Education and Prevention* 1991; 3(1): 50-59.

Canadian Aboriginal AIDS Network. Joining the Circle: An Aboriginal Harm Reduction Model. June 1998.

Caron, F. Teaching Teenagers about AIDS. *The Canadian Nurse* 1990; 86(4): 33-34.

Choi, K., and Coates, T.J. Prevention of HIV Infection. *AIDS* 1994; 8(10): 1371-1389.

Clatts, M.C., and Rees, D.W. Correlates and Distribution of HIV Risk Behaviors among Homeless Youths in New York City: Implications for Prevention and Policy. *Child Welfare* 1998; 77(2): 195- 207.

Coyle, K., Basen-Engquist, K, Kirby, D., *et al.* Short-Term Impact of Safer Choices: A Multicomponent, School-Based HIV, other STD, and Pregnancy Prevention Program. *Journal of School Health* 1999; 69(5): 181-188.

Creswell, J.W. Qualitative Inquiry and Research Design. Thousand Oaks, California. SAGE Publications. 1998.

Darke, S., *et al.* The reliability and validity of a scale to measure HIV risk-taking Behaviour among intravenous drug users. *AIDS* 1991; 5: 181.

DeMatteo, D., Mjor, C., Block, B., *et al.* Toronto Street Youth and HIV/AIDS: Prevalence Demographics, and Risks. *Journal of Adolescent Health* 1999; 25(5): 358-366.

Department of Health and Social Services. Building Bridges to Healthy Relationships: Communities Dealing with HIV/AIDS and Related Concerns in the Northwest Territories: A Framework. June 1996.

DuBois, M.J., Brassard, P., and Smeja, C. Survey of Montreal's Aboriginal Population's Knowledge, Attitudes and Behaviour Regarding HIV/AIDS. *Canadian Journal of Public Health* 1996; 87(1): 37-39.

Feudo, R., Vining-Bethea, S., Shulman, L.C., *et al.* Bridgeport's Teen Outreach and Primary Services (TOPS) Project. *Journal of Adolescent Health* 1998; 23(suppl. 2): 49-58.

Furey, R. High AIDS risk plagues Aboriginal communities. *The First Perspective* 1999; 8(12):11.

Futterman, D., Chabon, B., and Hoffman, N.D. HIV and AIDS in Adolescents. *Pediatric Clinics of North America* 2000; 47(1): 171-188.

Galbraith, J., Ricardo, I., Stanton, B., *et al.* Challenges and Rewards of Involving Community in Research: An Overview of the "Focus on Kids" HIV Reduction Program. *Health Education Quarterly* 1996; 23(3): 383-394.

Gibson, N., Gibson, G., and Macaulay, A.C. Community-based research: Negotiating research agendas and evaluating outcomes. In Morse, J., Swanson, J., and Kuzel, A.J. Eds. The Nature of Qualitative Evidence. Thousand Oaks, California. Sage Publications. 2001.

Graham, C.A. AIDS and the adolescent. *International Journal of STD & AIDS* 1994; 5(5): 305-309.

Green Rush, A. Planning HIV Prevention Interventions. In HIV Prevention in Native American Communities. The National Native American AIDS Prevention Center. Oakland, California. 1992.

Hall., R.L., Wilder, D., Bodenroeder, P., and Hess, M. Assessment of AIDS Knowledge, Attitudes, Behaviors, and Risk Level of Northwestern American Indians. *American Journal of Public Health* 1990; 80(7): 875-877.

Heath, K.V., Cornelisse, P., Strathdee, S.A., *et al.* HIV-associated risk factors among young Canadian Aboriginal and non-Aboriginal men who have sex with men. *International Journal of STD & AIDS* 1999; 10:582-587.

Health Canada. Alberta Aboriginal HIV Strategy: 2001-2004. Spring 2001.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV/AIDS Among Aboriginal Persons in Canada Remains a Pressing Issue. May 2001.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. AIDS and HIV in Canada. April 2000.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV and AIDS Among Youth in Canada. May 2001 and April 2003.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV and AIDS Among Women in Canada. April 2003.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV and AIDS Among Aboriginal People in Canada. April 2000 and April 2003.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV and AIDS Among Aboriginal Persons in Canada. May 1999 and April 2003.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. HIV Infection Reporting in Canada. May 2001 and April 2003.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. Positive HIV Test Reports in Canada. April 2000 and April 2003.

Health Canada. HIV/AIDS Epi Updates, Centre for Infectious Disease Prevention and Control. Prevalent HIV Infections in Canada: Up to One-Third May not be Diagnosed. May 2001 and April 2003.

Health Canada. Community-Based Research Scholarships: Guide for Applicants. May 2001.

Health Canada. Medical Services Branch. Research on HIV/AIDS in Aboriginal People: A Background Paper. September 1998.

Health Canada. Population and Public Health Branch (formerly LCDC). HIV/AIDS.

Health Canada. Surveillance Report to June 30, 2003. Centre for Infectious Disease Prevention and Control. HIV and AIDS in Canada. November 2003.

Hein, K. Fighting AIDS in Adolescents. *Issues in Science and Technology* 1991; 7(3): 67-72.

HIV Edmonton. Retrieved from the World Wide Web on April 16, 2002: http://www.hivedmonton.com/main.html

Holtzman, D., Anderson, J.E., Kann, L., *et al.* HIV Instruction, HIV Knowledge, and Drug Injection among High School Students in the United States. *American Journal of Public Health* 1991; 81(12): 1596-1601.

Janssen, J. AIDS crisis in FNs. *The First Perspective* 1999; 8(12): 9.

Jemmott, J.B., and Jemmott, L.S. HIV risk reduction behavioural interventions with heterosexual Adolescents. *AIDS* 2000; 14(suppl. 2): S40-S52.

Kelly, J.A. HIV prevention interventions with gay or bisexual men and youth. *AIDS* 2000; 14(suppl. 2): S34-S39.

Kennedy, M.G., Mizuno, Y., Hoffman, R., *et al.* The Effect of Tailoring a Model HIV Prevention Program for Local Adolescents Target Audiences. *AIDS Education and Prevention* 2000; 12(3): 225-238.

Ketting, L. Indigenous Traditional Medicine and HIV/AIDS: A Literature Review. Health Canada 1996.

Kirby, D., Short, L., Collins, J., *et al.* School-based programs to reduce sexual risk behaviors: a review of effectiveness. *Public Health Reports* 1994; 109(3): 339-360.

Lambert, D.T. AIDS and the Aboriginal Community. *Canadian Journal of Public Health* 1993; 84(suppl. 1): S46-S47.

Lewis, C., Battistich, V., and Schaps E. School-Based Primary Prevention: What is and Effective Program? *New Directions for Child Development* 1990; 50: 35-59.

Lindsey E., and McGuinness L. Significant elements of community involvement in participatory action research: evidence from a community project. *Journal of Advanced Nursing* 1998;28(5): 1106-1114.

Luna, G.C., and Rotheram-Borus, M.J. Street Youth and the AIDS Pandemic. *AIDS Education and Prevention* 1992; suppl: 1-13.

Lustig, S.L. The AIDS Prevention Magic Show: Avoiding the Tragic with Magic. *Public Health Reports* 1994; 109(2): 162-167.

Main, D.S., Iverson, D.C., McGloin, J., *et al.* Preventing HIV Infection among Adolescents: Evaluation of a School-Based Education Program. *Preventive Medicine* 1994; 23: 409-417.

Mangum, A., Green Rush, A., and Sanabria, V. HIV Prevention with Native American Youth. The National Native American AIDS Prevention Center. Oakland, California. 1994.

Marquez, C., and Whiterabbit, R. HIV Prevention Education with Native American Youth. In HIV Prevention in Native American Communities. The National Native American AIDS Prevention Center. Oakland, California. 1992.

Marshall, C., and Rossman, G.B. Designing Qualitative Research. (3rd Ed.). London. Thousand Oaks, California. SAGE Publications. 1999.

McLeod, A. HIV/AIDS and Aboriginal People in Canada: A Discussion Paper on the Capacity of the Community to Respond. Canadian Aboriginal AIDS Network Inc. Ottawa, ON. March 1999.

Melkote, S.R., Muppidi, S.R., and Goswami, D. Social and Economic Factors in an Integrated Behavioral and Societal Approach to Communications in HIV/AIDS. *Journal of Communication* 2000; 5(suppl.): 17-27.

Mill., J.E. HIV Risk Behaviors Become Survival Techniques for Aboriginal Women. *Western Journal of Nursing Research* 1997; 19(4): 466-489.

Mill, J.E., and DesJardins, D.A. The Feather of Hope Aboriginal AIDS Prevention Society: A Community Approach to HIV/AIDS Prevention. *Canadian Journal of Public Health* 1996; 87(4): 268-271.

Millstein, S.G. Risk Factors for AIDS Among Adolescents. *New Directions for Child Development* 1990; 50: 3-15.

Minkler, M. Using Participatory Action Research to Build Health Communities. *Public Health Reports* 2000; 115: 191-197.

National Commission on AIDS. Preventing HIV/AIDS in Adolescents. *Journal of School Health* 1994; 64(1): 39-51.

Newman, C., DuRant, R.H., Ashworth, C.S., and Gaillard, G. An Evaluation of a School-based AIDS/HIV Education Program for Young Adolescents. *AIDS Education and Prevention* 1993; 5(4): 327-339.

Otis, J., Levy, A., and Drouin, N. In Social Work and HIV: the Canadian experience. Edited by William Rowe and Bill Rowe. Don Mills, Ont: Oxford University Press, 1998.

Pike, E.C. Some General Guidelines for HIV Education. In HIV Prevention in Native American Communities. The National Native American AIDS Prevention Center. Oakland, California. 1992.

Podschun, G.D. Teen Peer Outreach-Street Work Project: HIV Prevention Education for Runaway and Homeless Youth. *Public Health Reports* 1993;108(2): 150-155.

Price, N. The performance of social marketing in reaching the poor and vulnerable in AIDS control programmes. *Health Policy and Planning* 2001; 16(3): 231-239.

Prochaska, J.O., Redding, C.A., Harlow, L.L., *et al.* The Transtheoretical Model of Change and HIV Prevention: A Review. *Health Education Quarterly*1994; 21(4): 471-486.

Rotheram-Borus, M.J. Expanding the range of interventions to reduce HIV among adolescents. *AIDS* 2000; 14(suppl. 1): S33-S40.

Rotheram-Borus, M.J., Mahler, K.A., and Rosario, M. AIDS Prevention with Adolescents. *AIDS Education and Prevention* 1995; 7(3): 320-336.

Rotheram-Borus, M.J., Murphy, D., Fernandez, I., and Srinivasan, S. A Brief Intervention for Adolescents and Young Adults. *American Journal of Orthopsychiatry* 1998; 68(4):553-564.

Rothon, D.A., Strathdee, S.A., Cook, D., and Cornelisse, P. Determinants of HIV-related High Risk Behaviours Among Young Offenders: A Window of Opportunity. *Canadian Journal of Public Health* 1997; 88(1): 14-17.

Rowell, R., and Green Rush, A. HIV and High-Risk Behaviors. In HIV Prevention in Native American Communities. The National Native American AIDS Prevention Center. Oakland, California. 1992.

Rowell, R., and Green Rush, A. Values Clarification & Self-Assessment. In HIV Prevention in Native American Communities. The National Native American AIDS Prevention Center. Oakland, California. 1992.

Sikand, A., Fisher, M., and Friedman, S.B. AIDS Knowledge, Concerns, and Behavioral Changes Among Inner-City High School Students. *Journal of Adolescent Health* 1996; 18(5): 325-328.

Stiffman, A.R., Dore, P., Cunningham, R.M., and Earls, F. Person and Environment in HIV risk Behavior Change Between Adolescence and Young Adulthood. *Health Education Quarterly* 1995; 22(2): 211-226.

Sturdevant, M.S., Kohler, C.L., Williams, L.F., and Johnson, J.E. The University of Alabama Teenage Access Project. *Journal of Adolescent Health* 1998; 23(suppl. 2): 107-114.

Sullivan, R.T. The Challenge of HIV Prevention among High-Risk Adolescents. *Health & Social Work* 1996; 21(1): 58-65.

Tenner, A.D., Trevithick, L.A., Wagner, V., and Burch, R. Seattle YouthCare's Prevention Intervention, and Education Program. *Journal of Adolescent Health* 1998; 23(suppl. 2): 96-106.

Tseng, A.L. Anonymous HIV Testing in the Canadian Aboriginal Population. *Canadian Family Physician* 1996; 42: 1734-1740.

Tucker, V.L., and Cho, C.T. AIDS and Adolescents. *Postgraduate Medicine* 1991; 89(3): 49-53.

Wagner, L.S., Carlin, L., Cauce, A.M., and Tenner, A. A Snapshot of Homeless Youth in Seattle: Their Characteristics, Behaviors and Beliefs about HIV Protective Strategies. *Journal of Community Health* 2001; 26(3): 219-232.

Walter, H.J., Vaughan, R.D., Gladis, M.M., *et al.* Factors Associated with AIDS Risk Behaviors Among High School Students in an AIDS Epicenter. *American Journal of Public Health* 1992; 82(4): 528-532.

Walters, A.S. HIV Prevention in Street Youth. *Journal of Adolescent Health* 1999; 25(3): 187-198.

Wardrop, K. A Framework for Health Promotion…A Framework for AIDS. *Canadian Journal of Public Health* 1993; 84(suppl. 1): S9-S13.

Weaver, H.N. Through Indigenous Eyes: Native Americans and the HIV Epidemic. *Health and Social Work* 1999; 24(1): 27-34.

Weiser, J., Fife, C., McLeod, A., *et al.* Taking the Medicine Wheel to the Street. In W. Rowe B. Ryan (Eds.), Social Work and HIV: The Canadian Experience (pp. 161-182). Toronto, ON: Oxford University Press.

Wilcox, B.L., Millstein, S.G., and Gardner, W. Protecting Adolescents from AIDS. *New Directions for Child Development* 1990; 50: 71-75.

Wright, K.L. HIV and Adolescents. *Clinics in Family Practice* 2000; 2(4)

Appendix 1
Medline Search Strategy

1	exp hiv infections/	111569
2	exp hiv infections/pc	19555
3	health behavior/	7903
4	risk-taking/	4767
5	sex behavior/	18731
6	safe sex/	145
7	sexual abstinence/	394
8	health education/	32206
9	health promotion/	19259
10	exp risk/	263763
11	or/3-10	330325
12	1 and 11	18642
13	2 or 12	30782
14	(aboriginal$ or native$ or metis).mp.	68438
15	indians, north american/	6414
16	eskimos/ or inuit$.mp.	1993
17	or/14-16	74492
18	13 and 17	119
19	exp *hiv infections/pc	11499
20	*health education/ or *health promotion/	29571
21	*health behavior/	4128
22	20 or 21	33001
23	19 and 22	1530
24	limit 23 to review articles	90
25	exp north america/	786752
26	23 and 25	540
27	limit 26 to adolescence <13 to 18 years>	180

Appendix 2
OvidHealthSTAR Search Strategy

1	exp hiv infections/	77758
2	exp hiv infections/pc	18293
3	health behavior/	7631
4	risk-taking/	4506
5	sex behavior/	13816
6	safe sex/	123
7	sexual abstinence/	295
8	health education/	26530
9	health promotion/	17425
10	exp risk/	259742
11	or/3-10	313528
12	1 and 11	18519
13	2 or 12	29431
14	(aboriginal$ or native$ or metis).mp.	14519
15	indians, north american/	5235
16	eskimos/ or inuit$.mp.	1523
17	or/14-16	19108
18	13 and 17	114
19	exp *hiv infections/pc	10985
20	*health education/ or *health promotion/	25583
21	*health behavior/	3951
22	20 or 21	28882
23	19 and 22	1487
24	limit 23 to review articles	82
25	exp north america/	577116
26	23 and 25	521
27	limit 26 to adolescence <13 to 18 years>	182
28	limit 18 to nonmedline	0
29	limit 24 to nonmedline	0
30	limit 27 to nonmedline	1
31	28 or 29 or 30	1
32	from 31 keep 1	1

Appendix 3
EMBASE Search Strategy

1	exp human immunodeficiency virus infection/pc	8035
2	american indian/	1122
3	eskimo/	181
4	(inuit$ or aboriginal$ or metis or first nation$).mp.	1751
5	native american$.mp.	856
6	or/2-5	3568
7	1 and 6	21
8	exp *health education/	9568
9	health behavior/	4503
10	or/8-9	13467
11	exp *human immunodeficiency virus infection/	66792
12	10 and 11	1171
13	limit 12 to adolescent <13 to 17 years>	246
14	limit 13 to review	12
15	from 14 keep 1-12	12
16	exp north america/	78770
17	13 and 16	34
18	limit 17 to yr=1990-2001	34

Appendix 4
PsycINFO Search Strategy

1	exp american indians/	2956
2	native american$.mp.	1678
3	first nation$.mp.	151
4	(metis or aboriginal$).mp.	604
5	(eskimo$ or inuit$).mp.	425
6	or/1-5	4459
7	exp aids prevention/	1866
8	6 and 7	11
9	exp at risk populations/	13689
10	limit 9 to 200 adolescence <age 13 to 17 yrs>	3643
11	7 and 10	82
12	8 or 11	93

Appendix 5: Summary of reviewed articles

Table 1.9: Summary of articles for HIV prevention in Adolescents, HIV prevention in Aboriginal peoples, school-based HIV programs, and Urban/street-youth and inner-city HIV programs.

Authors (s)	Date	Age/group	Size of sample	Methodology	Issues Addressed	Main findings
Articles specific to HIV prevention in Adolescents						
Choi and Coates	1994	adolescents, young Adults	NA	Review	HIV prevention Behaviour change MSM, IDU Community interventions Counselling School-based interventions	AIDS prevention programs produced long-term behaviour change. Sustained programs lead to sustained change. Intensive interventions result in greater risk reduction. Accessibility reduces risk. Skills building and addressing norms increase behaviour change. Individual interventions change behaviour but do not meet the need of populations with high prevalence of HIV. Counselling not sufficient for HIV risk reduction. Working at community level can lead to significant behaviour change.
National Commission on AIDS	1994	Adolescents (13-19)	NA	Report	Developmental Issues Cultural diversity High-risk situations: -Runaways & homeless -Youth in detention -alcohol & drug abuse -out-of-school youth -gay, lesbian and bisexual -victims of sexual child abuse -youth of colour -young women -smaller communities	Need to ensure that programs are culturally sensitive by including the people that the interventions are for. They should be involved with policy, development and implementation. Youth who are marginalized, poorly educated, have few employment skills come from abusive families and who grow up in violent communities are at higher risk for HIV infection. Failing social and economic systems in inner cities contribute to HIV infection among high-risk youth. Skills building is important for youth to make healthy decisions. Youth most at risk for HIV infection do not attend school regularly, therefore school-based HIV prevention is not logical for these youth. Access to services reduces risk of HIV infection. Youth in these risk groups are more likely to have to have multiple sexual partners.
Rotheram-Borus *et al.*	1995	Adolescents (13-19)	NA	Review	Risk factors for HIV -sexual behaviours	HIV risk behaviours are more prevalent among high-risk youth.

					-IDU -incarcerated youth -runaways & homeless -minorities -MSM Factors influencing sexual risk acts -sex roles -sexual orientation -substance abuse Knowledge about HIV Prevention Health Belief Model Self-efficacy Social Learning Theory AIDS Risk Reduction Model	Ethnic differences suggest that HIV prevention be developed differently for different cultural groups. The use of condoms for high-risk youth is not high. Only 10% of youth increase use of condoms due to concern about HIV. Youth in these risk groups are more likely to have multiple sex partners. Being well informed about HIV/AIDS did not change youth's behaviour towards the pandemic. HIV prevention programs must be tailored to the specific needs to the target adolescent group and reflect the cognitive, emotional and social issues of adolescents. Intensive prevention programs reduce risk.
Tucker and Cho	1991	Adolescents (13-19)	NA	Review	Knowledge & behaviour Prevention -levels of risk -acceptance of risk -condom use -education	Most adolescents are aware of the risk behaviours associated with HIV but only 1/3 alter their sexual behaviour to avoid AIDS. Need to focus on change in risky behaviours. Adolescents need to accept that they are at risk for HIV infection before changes in behaviour will take place.
Hein	1991	Adolescents (13-18)	NA	Discussion	Research initiatives Prevention programs Counselling Infected youth	HIV research, prevention and service programs often fail to address the needs of adolescents. Intensive prevention programming must be developed to inform youth of risky behaviours, modes of transmission, skills building, and access. Counselling should be ongoing and context should be delivered in an age-specific language.
Kennedy *et al.*	2000	Adolescents (12-19)	1677 830(control)	Questionnaires	Prevention Tailoring programs to adolescent audiences	Researchers found that tailoring an HIV prevention program to specific adolescent groups reduced the rate of risk behaviours.
Stiffman *et al.*	1995	Adolescents (13-18)	602	Interviews	Effects of personal and environmental determinants in HIV risk behaviour change Health Belief Model Theory of Reasoned Action	Researchers found that knowledge about HIV/AIDS and prevention of HIV was unrelated to change in high risk behaviours. They also found both personal and environmental variables influence change in HIV by inner-city youth and that the two

					Social Cognitive Theory	sets of variables interact with one another. Prevention should focus on the variables that predict change in high risk behaviours. Prevention programs must include family, society, and community environment
Sikand *et al.*	1996	Adolescents (13-20)	771	Questionnaires	AIDS Knowledge and attitudes Behaviour change Health Belief Model Social Cognitive Theory	Researchers found that students had good knowledge about AIDS but most continued high risk behaviours. Researchers also found that students had significant misconceptions about modes of HIV transmission.
Auslander *et al.*	1998	Adolescents (13-18)	NA	Review	Out-of home care youth Child Welfare youth Independent living programs	Youth who are abused and neglected and who are in out-of home care are at high risk for HIV infection. Adolescents who are sexually active, have no stable family or home life, have behavioural/emotional issues, and have school failures are at high risk for HIV infection. Youth in this category who were knowledgeable about AIDS did not change high risk behaviours. Prevention programs need focus on knowledge, attitudes, skills building, education, and future life options.
Millstein	1990	Adolescents (13-19)	513	Discussion of Epidemiology	Risk factors -gay youth -IDU -alcohol use -multiple sex partners -inner-city youth -homeless & runaways -racial,ethnic minorities	Adolescents in the risk groups identified are at higher risk for HIV infection. The number of AIDS cases among adolescents was not high but many HIV infections are thought to occur during adolescence due to the significant number of AIDS cases between the ages of 20-29.
Wilcox *et al.*	1990	Adolescents (13-19)	NA	Discussion	Research needs High-risk youth Interventions	Adolescents are engaging in unsafe sexual behaviour. The rate of STDs among youth indicate that this group is at High-risk for HIV infection. Effective theory-based interventions need to be developed that take into account knowledge about sexuality and its social and cultural context. Interventions should focus on two groups – those that have not not had sex to prepare them, and sexually active to inform about risk reduction.

Walter *et al.*	1992	Adolescents (10^{th} Grade)	531	Survey Questionnaires	Health Belief Model Social Cognitive Theory Risk Behaviours Beliefs & Knowledge	Researchers felt that questionnaire data are as accurate as interview data in assessing sexual-behaviour prevalence rates. They state that the results of this study may not generalizable to students with a different demographic profile, or to teenagers who are often absent or have dropped out of school.
Graham	1994	Adolescents	NA	Review	Sex behaviour Sex education Knowledge and attitudes Prevention	There is a large gap between knowledge and behaviour change. Knowledge is necessary but it can't stand alone. Focus of sex education campaigns has been on the negative aspects of sex (what you should not be doing). There needs to be more positive messages sent out to young people in order to affect behaviour change. Often, sex education for youth assumes that all youth are the same. We must focus on the specific needs of the group. Effective programs have the following: consistent messages, peer education, HIV/AIDS positive speakers, and openness about sex.
Rotheram-Borus *et al.*	1998	Adolescents (13-24)	139	Interviews	Intervention -three session or control of brief education focus	Shorter sessions over a longer period of time allows for more practice of new behaviours as compared to longer sessions over shorter period of time. Specificity of social-cognitive theories needs to be re-examined. More sessions over longer periods of time and longer follow-up is recommended.
Jemmott and Jemmott	2000	Adolescents	NA	Review	Behavioural theory Sex behaviour Interventions	Concludes that theory-based prevention programs that include specific needs and culture of the group in question can positively affect sexual-risk behaviour change.
Rotheram-Borus	2000	Adolescents	NA	Review	Interventions	Prevention programs need to turn to innovative means to reach adolescents. Focus needs to be placed on accessibility, acceptance, cultural backgrounds, age, risk level, gender, ethnicity, sexual orientation, and socio-economic status. The community must be involved, settings must be diverse.
Kelly	2000	Adolescents	NA	Review	Risk behaviour Prevention Interventions	Face-to-face group, workshop interventions and community-level programs have been effective in promoting reduction in risk

						taking behaviour. Minorities are identified as a group that needs to be focussed upon.
HIV prevention in Aboriginal peoples						
Baldwin *et al.*	1999	Native American drug users (IDU and/or crack cocaine smokers)	67	Focus group interview	HIV/AIDS risks for drug users -alcohol use -high-risk sexual behaviour Interventions/Prevention	Researchers found that HIV prevention should be culturally sensitive and should include traditional values and language. Respondents voiced concern that such values have been lost over the years. However, Native traditional ways and healing ceremonies could be effective in HIV/AIDS risk behaviours. Participants also explained that traditionalism may differ among generations within the community. Many participants felt that HIV/AIDS could not happen to their Community, often it is still considered a "white man's" disease. A focus on the education of youth was identified and is important because there is a need to protect the future of Native cultures.
Baldwin and Rolf	1996	Native youth (8^{th} and 9^{th} grade)	3335	Evaluation	Culturally sensitive HIV/AIDS and substance abuse prevention for Native youth Social Action Theory Theory of Reasoned Action Health Belief Model Social Learning Theory	Prevention should be relevant to developmental issues of target group, address values, beliefs, and attitudes of participants with emphasis on socio-cultural systems, and promote relevant changes in health behaviour. Prevention models such as the Health Belief Model and Theory of Reasoned Action contain limitations and thus multi-component approaches based on integrating multiple models of behaviour change are more promising.
Brassard *et al.*	1996	Urban Natives	9	Needs Assessment	Sexual behaviour Modes of transmission Knowledge, attitudes, beliefs, and practices Prevention	Researchers found that some of the participants were unsure of the modes of transmission. There were many mis-conceptions about the way in which HIV is transmitted. Participants felt they were not at risk and that it was someone else's problem. ie, gay issue. Participants identified IDU as possible high-risk behaviour. Participants felt that alcohol use, loneliness/isolation and gender roles lead to unsafe sexual behaviour. Researchers concluded that high-risk behaviours occur frequently

						in urban Native populations. Researchers suggest that increased personal coping skills, reinforced community action, and reorientation of services would lead to better HIV prevention.
DuBois *et al.*	1996	Urban Natives	99	Interviews	Knowledge, attitudes, behaviour regarding AIDS	Researchers state that it is difficult to gather information on urban Native people and that Native organizations may have more success serving their people because of a built up trust and credibility. Problem areas identified were alcohol use, drug abuse, many sexual partners, self-esteem, violence, education levels and income.
Rothon *et al.*	1997	Young Offenders (12-19)	806	One-on-one interviews	Ethnicity Risk behaviours IDU Sex trade Same gender sex Bisexual activity	Researches found that Native youth aged 12-15 were five times more likely to inject drugs than non-Natives.When compared to the 16-19 year olds, prevalence of IDU was similar for the 12-15 year olds. Differences were found in some risk factors for the two age groups. ie. Female gender was significantly associated with IDU for 15-19 yr olds but not 12-15 yrs. Females were more likely than males to trade sex for money or drugs. Ethnic minority youth have higher HIV prevalence rates, lower use of condoms and greater misconceptions about HIV/AIDS. Prevention strategies should take into Account ethnocultural differences.
Tseng	1996	Aboriginal Peoples	NA	Discussion	Anonymous HIV testing Risk factors Prevention AIDS Awareness	Failure to reduce high risk sex behaviour is one of the strongest risk factors for HIV transmission. Youth often think they are not vulnerable to HIV infection.The majority of Native populations are younger than 30. Thus, AIDS may have a large effect on this young community. Prevention programs that have the following characteristics have greater chances of success: holistic, positive, empowering, sensitive, accessible, community based, integrated, linked

						existing AIDS activities, audio-visual media, culturally transportable, and ongoing. Anonymous testing enables high risk individuals to get tested who otherwise would not come forward for testing.
Lambert	1993	Aboriginal Communities	NA	Discussion	Whole life effects -physical -mental -emotional -spiritual	Focus needs to shift from one that is individualistic to one that is more community focused. Do's in education, successes and failures are discussed.
Hall *et al.*	1990	Northwestern Natives (12-78)	710	Questionnaires	AIDS Knowledge, attitudes, behaviours and risk level Risk reduction	Percentage of participants who fell into a high risk group was much higher when compared to non-Natives. Ie. 7% for Natives vs 3% in the general population. Native youth are at risk for HIV due the large number that fall within the middle risk group which is predominantly young. 71.4% of youth aged 12-17 fell in the middle-risk group. The use of alcohol and drugs is much higher for this group than low-risk. Youth in the middle-risk group reported having sex at a younger age. Over half of this group reported having sex with partners from the reservation and non-reservation communities.
Weaver	1999	Native peoples	NA	Review	Risk factors -high-risk sexual contact -alcohol and drug use -migration paterns from reservation to city and back Prevention Culture -stereotypes, perceptions and beliefs	Prevention focused on culturally based techniques, confronts mis-conceptions, connects to spirituality, and moves beyond the micro level is more likely to be successful. Aboriginal communities need to be involved with the development of prevention programs.
Mill and DesJardins	1996	Feather of Hope Aboriginal AIDS Prevention Society	NA	Discussion	Prevention Community development	Delivered culturally sensitive HIV/AIDS programs in Alberta. Staff were of Aboriginal ancestry which enhanced credibility with the communities they worked with. Each community is unique in its beliefs, practices and views on

						health. Community member involvement ensured that local traditions provided the framework prevention programs. Individual and group empowerment are key factors in this process.
Mill	1997	Aboriginal Women	25	In-depth Interviews	Formative Years -Family Relationships -Parental substance abuse -Physical, Emotional and sexual abuse Survival Techniques -Running away -Substance abuse -Promiscuity & prostitution -Boyfriends and husbands -Children Knowledge of STDs Self-Esteem	Despite having knowledge about HIV/AIDS, the women engage in high risk behaviours such as IDU, alcohol abuse, promiscuity, prostitution, & abusive victimizing relationships. Women who were sexually abused as children are at higher risk for HIV infection due to increased risk taking behaviour such as those mentioned above. Lack of self-worth also leads to high risk behaviours. Unable to cope with troubled family life, these women(as teens) ran to the streets where they were forced into high risk behaviour in order to survive.
Weiser *et al.*	1998	Aboriginal Street Youth	NA	Discussion	Medicine Wheel as a Model for AIDS Education Healing circles	Prevention efforts need to aim at the whole person not just medical symptoms. Explanation of the Model is given. Street youth live in the street and First Nations culture at the same time. They are at extreme risk for HIV infection. They need culturally Sensitive, non-judgemental Counselling, and education. They trust those who are familiar with their culture and value system.
Ketting	1996	First Nations	NA	Literature Review	Traditional Medicine -methods -healers -beliefs -compared to Western Medicine	Definitions are given, examples are discussed, healing ceremonies are mentioned, talking circles are explained, sweatlodge explained and recommendations are given.
Rowell and Green Rush	1992	Native Americans	NA	Discussion	High-risk behaviour -sexual behaviour -drug use (IDU, alcohol)	Development of negotiation skills is needed in order to discuss condom use with a sexual partner

					-STDs	Provides safer sex guidelines to help reduce risk of HIV. Transmission of HIV via IDU is a cause for concern. There is value to including former IDU members in HIV programs. Alcohol programs should include HIV prevention education due to the fact they have access to high risk taking individuals. Aboriginals have high rates of STDs which are good indicators high-risk behaviour. A risk behaviour questionnaire is Included with this study.
Rowell and Green Rush	1992	Native Americans	NA	Discussion	Values, assumptions and attitudes	It is important to know how one feels about HIV/AIDS when it is the topic. Educators and clients need to address their values, attitudes and assumptions. These need to be out in the open. A self-assessment outline is provided
Pike	1992	Native Americans	NA	Discussion	HIV education	Twenty principles to HIV education are presented and discussed. These principles are not to be used with every group but can be tailored to meet the needs of specific groups. What works is unique to the specific group.
Marquez and Whiterabbit	1992	Native Americans	NA	Discussion	Prevention Education High-risk behaviours Health Belief Model Self-efficacy theory	Aboriginal youth suffer more to poverty, alcohol abuse, neglect, substance abuse, sexual abuse, emotional abuse and physical abuse than the general population High-risk youth usually have commonalities: failure in school, early age risk behaviours, and giving in to peer pressure. Two projects are discussed: The AIDS Project at the Indian Health Board of Minneapolis and The Youth Empowerment Program at the Urban Indian Health Center.

Green Rush	1992	Native Americans	NA	Discussion	Prevention Planning	Four steps are outlined to help develop HIV prevention programs: 1-Conduct community needs assessment 2-Determine objectives for the intervention based on the results from needs assessment 3-Complete a planning outline for the intervention, including barriers you may have to overcome and funding 4-Develop an evaluation plan for the intervention
Mangum *et al.*	1994	Native Youth	NA	Discussion	Planning Manual -Focus groups -interviews -surveys -HIV and youth -risk factors -Objectives -Strategies and Methods -Approaches -Examples -Evaluation	Prevention strategies should be framed in the context of cultural values, beliefs, language, and community of those you are trying to develop the programs for. Youth know how they are affected by HIV, they know their language and cultural norms. Youth should be involved in defining the problem, setting goals, and developing strategies. Focus groups, interviews and surveys are good ways to get information. Theories are defined and explained. Some examples are given and discussed. Building community support identified as important to developing HIV prevention programs for Native youth.
Dept of Health and Social Services	1996	Native Peoples (NWT)	NA	Framework Discussion	Model of Community wellness Attitudes, values and Behaviours Prevention -availability -community based Counselling, testing	AIDS challenges deep-rooted attitudes, values and behaviours about: roles, family structure, life skills, communication, sexual behaviours, responsibility, social issues and ethical issues to name a few. HIV/AIDS is everyone's concern. We need to work together in order to provide effective prevention programming, care, and support. Principles of the framework are provided. The Model of community wellness dealing with HIV/AIDS is presented. Accessible, effective HIV prevention is needed. Access to training and professional development, HIV testing, and appropriate community-controlled health & social services are required.

Health Canada	1998	Aboriginal People	NA	Background Paper	Research on HIV/AIDS Burden of Illness Determinants & risk factors Attitudes & behaviours Youth Interventions Research Methods & Ethics Recommendations	This paper essentially lists research that has been done around the HIV/AIDS issue. Some of these are of importance in the current working document. Research addressing social determinants and risk factors need to be undertaken. This research needs to focus on attitudes and behaviours towards: condom use, age of sexual debut, STD control, sex work, sexual education, sexual orientation, sexual abuse, and human rights. The research also needs to focus on youth: self-esteem, peer influences, identity, sexuality, generational relationships, and interventions. Aboriginal HIV/AIDS research needs to be Community-based or have a participatory focus.
Health Canada and Alberta Health and Wellness	2001	Alberta Aboriginal People	NA	HIV Strategy (2001-2004)	Strategies -building capabilities -building strong partnerships -care and support -safer sex & harm reduction -culturally appropriate -effectiveness -enhanced epidemiology data Tree of Creation	The Tree of Creation is explained. Additional capabilities are needed in Aboriginal communities to address HIV. Stronger partnerships between Aboriginal communities, HIV agencies, health authorities, and other service organizations are needed. More care and support services are needed for Aboriginal people. Safer sex and harm reduction practices need to be used more often, especially by high-risk Aboriginal people(youth, IDU, women) Culturally appropriate information and resources are needed. Effectiveness of HIV programs needs to be evaluated. Epidemiological data is lacking and needs to be routinely collected and analyzed.
McLeod	1999	Aboriginal Peoples	NA	Discussion Paper	Community Response Changing Trends -IDU -youth Culturally Based response -barriers Aboriginal Capacity	The key to prevention and treatment is Knowledge. IDU is a significant factor in HIV infections among Aboriginal MSM. This paper showed that the majority of Aboriginal people (70%) are under the age of 34 and almost half of the Aboriginal population is near the age of 23, which is the median age of HIV infection in Canada. Combine this with factors like poverty, discrimination, and lack of safer sex role models for Aboriginal youth, there is serious cause for concern. When

						youth move away from home, they often lose contact with family and get involved in substance abuse, street crime and sex trade in order to survive. The development of Aboriginal culturally based HIV/AIDS programs is supported. Some examples of barriers to this are: -racism and discrimination -lack of Aboriginal representation in planning, delivering and evaluating -majority of Aboriginal population is AIDSphobic, homophobic, and IDUphobic -initiatives are directed primarily to on-reserve populations. The complexity of HIV/AIDS issues and growth of epidemics in urban areas are difficult to deal with. It is obvious that the capacity of Aboriginal people to respond is very limited. Aboriginal front-line workers are over-extended. Aboriginal people are over-represented in all newly emerged groups affected by HIV but no Aboriginal people hired to develop culturally based programs. There has been no evaluation of education and prevention delivered to Aboriginal people for the last ten years.
Assembly of First Nations	1998	Aboriginal Youth (14-19)	289	Questionnaires Talking circles	Self-esteem & spirituality Personal Health Knowledge about HIV/AIDS	Youth identified that it is not enough to just focus on unprotected sex, an emphasis needs to be placed on HIV infection via IDU. Youth indicated that engaging in Unprotected sex was due to feelings of Invulnerability, rebelliousness and in Urban settings some youth said it was due Self-destructive tendencies. Suggestions to To help youth practice safer sex are: -update HIV/AIDS education by making it more graphic, showing how the virus attacks the immune system and affects you -eliminate fear of stigmatization -programs that increase self-esteem Youth identified obstacles as: -no role models -youth are isolated because they fear discrimination and stigmatization, so they

						are afraid to ask questions. A solution was to get youth involved with education and prevention initiatives from the start. Also suggested was that Elders come and talk to Youth about HIV and other diseases. An objective should be to empower First Nations Peoples by building capacities for research based on knowledge and values.
Aboriginal Nurses Association of Canada	1996	Aboriginal Women	582	Questionnaires	Knowledge, attitudes, beliefs Violence, alcohol, drug abuse Education: -Fears and myths -High-risk behaviours -Traditional values -Healthy relationships -Self-esteem	An HIV/AIDS program that is designed to accommodate Aboriginal life will reflect experiential learning style of Native people Community-based education methods should not be limited to rural communities. A community-team approach is more effective in getting urban Aboriginal people to participate. The incorporation of traditional methods is important.
Canadian Aboriginal AIDS Network	1998	Aboriginal Peoples	126	Questionnaires	IDU Harm Reduction	The study indicated that there are three Aboriginal communities that need to be involved with the issue of HIV and IDU: Urban Aboriginal street population, the Reserve population and Aboriginal people in Canadian prisons. These groups need to to act on the issue of IDU and HIV to prevent the spread of HIV. The harm reduction model is pragmatic, and non-judgemental in it's approach. The four components of the model are: -needle exchange programs -condom distribution -methadone maintenance treatment -counselling Aboriginal people are at great risk for HIV due to many factors such as IDU, unstable or no housing, living on the streets, sex and sex trade involvement. The goal of this program was to empower Aboriginal IDUs make informed decisions and reduce risk of HIV transmission.
Alberta Health	1995	Aboriginal Albertans	NA	Report	Communities Families What affects health Health Challenges Health Services Community Development	This document has a broad scope and talks about several issues. For the purposes of this paper, only the section on AIDS will appear. Aboriginal people have identified twelve issues about HIV/AIDS: denial, judgemental attitudes, irresponsible

						behaviour, fear, one-dimensional views, drug and alcohol abuse, ignorance, silence, no healthy vision, poverty, lack of respect, and loss of spiritual values.
Health and Welfare Canada	1990	Aboriginal peoples	NA	Report	Risk factors Cultural relevance	Identifies that the factors that lead to HIV infection are present in Aboriginal communities, that there is a need for Aboriginal specific HIV/AIDS education and prevention programs that incorporate traditional values, beliefs and healing. There is a shortage of culturally relevant resources. Many Aboriginal members do not want to discuss HIV/AIDS. Often, HIV and AIDS are not thought of as priorities.
Heath *et al.*	1999	Aboriginal Men MSM non-Aboriginal men MSM (18-30)	57 624	Questionnaires	Risk factors	Aboriginal MSM were more likely to live in unstable housing, less likely to be employed, more likely to have income less than $10,000 and were more likely to be receiving income assistance than non-Aboriginals. Aboriginals were also more likely to be involved in non-consensual sex, sexual abuse during childhood and been paid for sex. Aboriginals have higher depression rates than non-Aboriginals. These factors indicate that Aboriginal MSM are at high risk of for HIV infection.
Urban/street-youth and inner-city HIV programs						
Caron	1990	High School Students	NA	Discussion	AIDS Education Program	The success of this program is attributed To the philosophy of voluntary adoption of healthy behaviour. Students talk and think about AIDS prevention through role play. This method is a fun and thorough way to address situations and discuss safer sex. Students develop an understanding of HIV and AIDS as well as compassion for people living with HIV/AIDS. Students prepare visual projects such as posters, comic strips, and videos. These projects show the assimilation of healthy attitudes and values. Students learned how to work effectively together on a difficult project.
Brown *et al.*	1991	Adolescents	2709	Questionnaires	AIDS education impact Knowledge about AIDS Attitudes towards people AIDS	Student's knowledge increased after education. However, misconceptions still existed after education on HIV/AIDS. A goal of education should be to help

					Fear of AIDS High-risk behaviour	students with situations that they will be faced with. A minority of students (7%) said they would avoid intercourse as a prevention method. The results of this study may not be generalizable to other because this study was done in mainly white, middle class students. This study expresses caution in the use of scare tactics as a method of education. Gradual changes in behaviour are more evident than right away. Prevention needs to occur over time and be broad in focus. Education needs to be ongoing.
Feudo *et al.*	1998	Youth (13-27)	2379	Discussion	Description of Model	The Teen Outreach and Primary Services (TOPS) Project is a peer-based initiative. The project ensures access to health and support services for at risk youth. TOPS is thought to be replicable in other cities.
Tenner *et al.*	1998	Youth (14-21)	272 (906 utilized program)	Interviews	Evaluation of project	The YouthCare's Program has five major elements: 1) youth-specific HIV antibody test and counselling, 2) outreach, 3) peer involvement, 4)intensive case management for HIV-positive youth, and 5) prevention services for youth at risk of HIV infection. Teamwork is an important factor for designing interventions. Services need to be flexible and tailored to the client.
Sturdevant *et al.*	1998	Adolescent women (10-21)	111 169 328		Three Evaluations of three components of project	Program successfully went from a clinic-based project to a community-based project that provided HIV prevention, testing, and service messages to at risk youth. This switch saw an increase in the number of young women seen.
Gailbraith *et al.*	1996	Adolescents	NA	Discussion	Community Participation Risk reduction	The "Focus on Kids" program define four main areas for obtaining community Involvement in health education programs: -defining and reaching the community -recognizing relationships of all parties -involving community members -considering culture of community The program was run in community sites which may have resulted in a larger number of at risk youth attending than at schools or institutional sites. Important are the developmentally appropriate and

						culturally relevant interventions that are community-based.
Lustig	1994	Adolescents (10-15)	281	Survey	Self-efficacy Behaviour change Theory of Reasoned Action Theory of Self-Efficacy	Knowledge alone does not change health behaviour. The Magic Show presented by "Cyrus or Iris the virus" is an entertaining and innovative way to provide information to teenagers about AIDS. This method dispelled misconceptions about HIV transmission, taught safer sex practices and increased perceived self-efficacy.
Clatts *et al.*	1998	Homeless Youth (12-23)	929	Survey	Risk behaviours Age distribution of risk	Researchers found that exposure to risk and risk taking behaviour increased as youth got older and more deeply involved in street economy. Older youth were more likely to be estranged from prevention services. This age differentiation need to be considered when programming is developed for street-involved youth.
Podschun	1993	Runaway and homeless Youth	NA	Discussion	Prevention Access	Homeless and out-of-school are often missed in HIV prevention measures. Low literacy among these youth require HIV prevention methods that are specific to their needs. Peer outreach programs are helping to facilitate flow of information to these at risk youth.
Wagner *et al.*	2001	Homeless Youth (13-23)	272	Face-to-face interviews	Risk behaviours Protective strategies & behaviours	The characteristics and beliefs of this target population must be understood in order to develop effective interventions. Areas of risk behaviour and inaccurate knowledge need to be understood. The differences in homeless youth also need to be considered.
Dematteo *et al.*	1999	Street Youth (14-25)	695	Face-to-face interviews	Risk behaviours Sexuality Risk factors	Social factors must be considered when developing HIV/AIDS prevention programs. Broader social challenges need to be addressed to decrease and control HIV transmission: decreasing inequities, strengthening families and communities, expanding prevention efforts, enhancing social support and enhancing individual coping ability.
Luna and Rotheram-Borus	1992	Street Youth	NA	Discussion	Prevention Clinical Care Research	Programs need to consider the cultural background and developmental stage of youth in order to be effective. The mental health of youth needs to be considered. Youth who are depressed or suicidal are

						not likely to change their behaviours. HIV prevention strategies need to be set in the real world. Emphasizing abstinence as the main goal of prevention for street youth is unrealistic. Youth are effective educators for peers. There should be a variety of methods such as comics and games should be used to convey information. Programs should be culture specific.
Sullivan	1996	Street Involved Youth (13-29	60	Interviews	Knowledge Risk behaviours	Substance abuse was an identified issue because of it's effect on high-risk sexual Behaviours. This group is vulnerable to unemployment, homelessness, dropping out of school, drug use, sexual exploitation separation from family. Health related issues are often not a priority for this group because things such as food, shelter, and drug relief. Of the sample, only 25% were in school. This group is severely subject to marginalization.
Walters	1999	Street Youth	NA	Review	Prevention	Street survival puts adolescents at high risk for HIV infection. Sexual orientation and ethnicity need to be considered when developing HIV risk-reduction programs. Homelessness is the main factor associated the risk behaviours that this group engages in. The simple act of providing shelter can reduce this groups risk for HIV infection.
School-Based HIV Programs						
Seymore *et al.*	1992	High School Students (15-18)	1194	Questionnaires	Evaluation of program Knowledge, attitudes and behaviour	Intervention had a modest increase in the knowledge of AIDS and HIV infection. Brief programs have limited effect on attitudes, knowledge or behaviour. More repetitive innovative programs need to be developed in order to effectively educate adolescents about the risks of HIV. The level of risk-taking behaviour was not changed. However, only IDU was looked at and only a small number of students identified being in involved with IDU.
Newman *et al.*	1993	Adolescents (11-14)	2219	Questionnaires	Evaluation of program Knowledge, attitudes and behaviours	The education program did not have a significant influence on knowledge level two weeks following the program. More extensive education programs are needed to positively influence younger adolescents

						knowledge level so that they can make choices that reduce risk behaviour.
Main *et al.*	1994	Adolescents	2844	Questionnaires	Evaluation of program Knowledge, attitudes and behaviours	The skills-based HIV intervention strategy did not postpone sexual intercourse onset. The program did reduce the rates of risk among sexual active students. They were more likely to use condoms and reported fewer sexual partners. IDU did not change. Researchers indicate that school-based programs that are supplemented with non-curriculum-based and community-based activities, will be more effective.
Lewis *et al.*	1990	Adolescents	NA	Review	Effective programs	Characteristics for effective school-based program are given. A few are: 1. Should be based on theoretical models that recognize multiple factors of drug use, sexual behaviour, and risk behaviours. 2. Fosters social, personal and academic development. 3. Are comprehensive and long-lasting. 4. Prevention should start before problem behaviour begins. The review suggests that comprehensive, carefully designed and implemented programs will have significant effect on risk behaviours.
Blake *et al.*	2001	Adolescents (14-18)	4159	Questionnaires	Bene[illegible]y-sensitive HIV instruction in schools Risk behaviours Gay, lesbian and bisexual youth (GLB)	GLB youth were more likely to engage in to have been engaged in substance use and were more likely to have had sex. They reported having sex at an earlier age and of having more partners and they were more to use drugs and alcohol before sex. GLB youth were more likely to consider suicide and more likely to have attempted suicide. GLB youth who received HIV education were less likely to have sex, had fewer sex partners and were less likely to use drugs and alcohol before sex.
Holtzman *et al.*	1991	Adolescents (9^{th} to 12^{th} grade)	8098	Questionnaires	HIV instruction, knowledge and behaviour	Student's who engage in IDU are less likely to stay in school. Dropout rates increase with grade level. HIV knowledge levels are lower among youth who engage in IDU. HIV instruction resulted in higher HIV knowledge and this was associated with lower IDU levels. However, HIV

						knowledge alone is not the only factor to change behaviours. Social skills, attitudes, efficacy, norms, and support are some that may play a role in risk behaviour change.
Coyle *et al.*	1999	Adolescents (9^{th} grade)	3677	Questionnaires	Evaluation of program	Knowledge, self-efficacy for condom use, attitudes about condom use, perceived barriers to condom use, risk perceptions, and communication were enhanced by the Safer Choices program. The program also decreased the frequency of intercourse without a condom and increased other forms of contraceptive use. Interventions that are theory-based, school-based, & are multi-component in nature can enhance psychosocial factors and change HIV risk behaviours, and also STDs and pregnancy.
Kirby *et al.*	1994	Adolescents	NA	Review	Effectiveness	Review listed characteristics for effective School-based programs as: 1. A narrow focus on reduction of sexual risk behaviours. 2. Social learning theories were used as the foundation for program development. 3. Information about risks of unprotected sex & ways to avoid them are given. 4. Social & media influences are addressed 5. Suitable values & norms are reinforced. 6. Modelling & practice in communication and negotiation skills were provided.

Appendix 6: Stakeholder Package

- Letter of Invitation
- Research Information Sheet
- Research Agreement

UNIVERSITY OF ALBERTA

HIV EDMONTON

Sonia Isaac-Mann
Master of Science Candidate
Faculty of Medicine and Dentistry
Department of Public Health Sciences
University of Alberta
(780) 433-7955
sti@ualberta.ca

October 10th, 2002

Linda Boudreau
Poundmaker's Adolescent Treatment Centre
4637-45th Ave
St. Paul, AB
T0A 3A3
(780) 645-1884

Dear Linda,

I am currently pursuing a Master of Science degree in the Public Health program within the Faculty of Medicine and Dentistry at the University of Alberta. As part of my requirements, I am conducting a thesis research project under the supervision of Dr. Cam Wild and Dr. Douglas Wilson from the Department of Public Health Sciences. My thesis project is entitled, "Development of a Community-Based HIV/AIDS Prevention/ Promotion program for At-risk Urban Aboriginal Youth," and has been approved by the Ethics Review Committee at the University of Alberta. To date, HIV Edmonton has been involved with this project as the main collaborators. It is vitally important to obtain input from relevant organizations in order to develop a program that is appropriate and thus, I would like to invite your organization to participate in this research project.

I have included a "Research Information Sheet" and a "Research Agreement" form. These documents provide details regarding the nature of the project. I am requesting that you please read the enclosed materials and consider participating in this valuable research. Your involvement in the research project would entail designating a representative from your organization to attend a stakeholder meeting on October 30, 2002 to discuss issues related to HIV/AIDS prevention/promotion programming for Urban Aboriginal Youth. We would like to know what your organization would like to see incorporated into such a program and what issues have been prominent for your organization when working with Urban Aboriginal Youth.

We would also need your help in identifying emancipated Urban Aboriginal youth between the ages of 15-17 years old and Urban Aboriginal youth aged 18-24 years old who use your services and/or programs so that they may participate in a survey questionnaire. Emancipated youth are considered those under the age of 18 years old who are not living at home with their parents or guardian. There also may be a need for the organization representative to distribute the questionnaires and be available to receive the completed forms. A further involvement from your organization may include providing a space to conduct interviews with a sample of the youth who have completed the questionnaire.

I wish to assure you that I plan to conduct my research in a way that respects all individuals and organizations involved the research project. I am from the Listuguj Mi'gMaq First Nation in Quebec and I have been working with Aboriginal groups for the last seven years. I have also focused my course work towards Aboriginal Culture and issues such as HIV/AIDS, diabetes, self-determination, and traditional healing/medicine. I view myself as a learner in this process and hope to gain valuable knowledge that will be used to develop appropriate HIV/AIDS prevention programs for Aboriginal youth.

Thank you for your interest and time in considering this request. If you have any questions, concerns additional ethics clearances or permissions that are required, or would like to discuss this research project, please contact me. I look forward to hearing from you and meeting you in the future. If your organization wishes to participate in this project, please have the appropriate official administrator from your organization contact me prior to the meeting date. The organization meeting will be held at HIV Edmonton located at 10550-102nd Street at 1:00 pm on October 30, 2002. Thank you for considering this research project.

Please note that because you are out of the city of Edmonton, you can opt to not attend the meeting on October 30th. I can fill you in on the events of that meeting and obtain your input via telephone or email. If you wish to attend the meeting, that would be great. Please let me know.

Sincerely,

Sonia Isaac-Mann, BSc.

UNIVERSITY OF ALBERTA

HIV EDMONTON

Research Agreement

PROJECT TITLE: Development of a Community-Based HIV/AIDS Prevention/Promotion Program for At-risk Urban Aboriginal Youth.

INVESTIGATORS:

Sonia Isaac-Mann, B.Sc.
Master of Science Candidate
Faculty of Medicine and Dentistry
Department of Public Health Sciences
University of Alberta
(780) 433-7955
sti@ualberta.ca

Erin Kardolus
HIV Edmonton
#600, 10242-105th Street
Edmonton, Alberta
T5J 3L5
(780) 488-5742
youth@hivedmonton.com

I_____(print name) as a representative of_____(organization) agree to participate as a research site in the project entitled "Development of a Community-Based HIV/AIDS Prevention/Promotion program for At-risk Urban Aboriginal Youth," conducted by Sonia Isaac-Mann, under the supervision of Dr. Cam Wild (Department of Public Health Sciences, University of Alberta) and Dr. Douglas Wilson (Department of Public Health Sciences, University of Alberta). The University of Alberta Health Ethics Review Board has approved this project. It is understood that by signing this agreement_____(organization) agrees to the following conditions of participation:

1. All youth participation is voluntary and anonymous.
2. The researcher is permitted to have questionnaire packages available at an agreed upon location (s), where the organization representative may pick them up. Each questionnaire package will contain (a) a cover letter and project description describing the purpose and procedures of the study, (b) an informed consent form, and (c) the questionnaire.
3. The researcher may provide informal information sessions previous to the study (to introduce the study and answer questions) and/or following the study (a summary of results and answer questions).
4. After completion of the research project, the researchers will provide (a) a written summary of the results, and (b) acknowledgement of the organization's participation in any publications resulting from the research (unless directed otherwise).

5. The participation of _____(organization) as a research site is voluntary and may be withdrawn at any time for whatever reason by contacting the researchers.

_____ _____
Organization Official Date

_____ _____
Researcher Date

UNIVERSITY OF ALBERTA

HIV EDMONTON

Research Information Sheet

It is widely known that, in Canada, many Aboriginal peoples move from reservations or small rural communities to live in larger cities. It may often be the case that Aboriginal peoples make up a large proportion of the minority groups in large urban areas. HIV/AIDS has not left Aboriginal peoples untouched. They are at great risk of transmitting HIV due to community members engaging in high-risk behaviour. There is cause for concern that youth within the Aboriginal population are at increased risk of HIV infection. Involvement in Intravenous Drug Use (IDU) along with participation in risky sexual behaviours (eg. sex trade, men who have sex with men (MSM), unprotected sex and multiple sexual partners) can put Aboriginal youth at high-risk.

HIV infection rates have been decreasing for the general Canadian population, but this is not the case for Aboriginal peoples. During a four-year period from 1996 to 1999, HIV infection among Aboriginal populations has increased by 91%.[i] There is evidence that youth are increasingly at risk. The average age of HIV infection has dropped from 32 years old to 23 years old.[ii] Over half of the Aboriginal population is near 23 years of age (53% under age 24), which is of serious concern given that the average age of HIV infection is 23 years old.[iii]

In some provinces, Native people account for as much as 30% of newly diagnosed cases of HIV.[iv] In Alberta, Aboriginal people represent 5% of the population but they make up 26% of newly diagnosed HIV cases.[v] Obviously, with the average age of Aboriginal people being so young, action must be taken to protect Aboriginal youth. Prevention strategies must be developed in order to reduce the rate of HIV infection among Aboriginal peoples before the epidemic becomes one that, in essence, could destroy the Indigenous peoples of Canada.

Prevention is the only defence against HIV/AIDS. Conventional HIV prevention programs may not be effective within an urban Aboriginal adolescent population. Focus needs to be re-directed to the unique needs of this population. Important to remember is that Aboriginal people are unique in their traditions, values, beliefs and attitudes. A prevention strategy that considers these factors would be beneficial in order to deliver effective HIV education to this population.

Most HIV prevention projects for aboriginal people have focussed on reservation and rural communities. The literature review reveals that very little community-based or participatory action research has been done with the Aboriginal youth population. The focus of the research will be on HIV prevention programming for urban Aboriginal youth

Department of Public Health Sciences
13-103 Clinical Sciences Building • University of Alberta • Edmonton • Canada • T6G 2G3
Fax: (780) 492-0364 • http://www.med.ualberta.ca/phs/

[i] Health Canada. Bureau of HIV/AIDS, STD and TB Update Series, Centre for Infectious Disease Prevention and Control. HIV/AIDS Among Aboriginal Persons in Canada Remains a Pressing Issue.

[ii] Bowie et al. Implications of the Canada Youth and AIDS Study for Health Care Providers.

[iii] Janssen. AIDS crisis in FNs. *The First Perspective.*

[iv] Furey. High AIDS risk plagues Aboriginal communities. *The First Perspective.*

[v] AIDS in Aboriginal Communities. *The Indigenous Times.*

Appendix 7: Questionnaire Package

- Cover Letter to Participants
- Information/Consent Form
- Questionnaire

UNIVERSITY OF ALBERTA

HIV EDMONTON

Dear Potential Research Participant,

My name is Sonia Isaac-Mann, and I am pursuing a Master of Science degree at the University of Alberta (in the Faculty of Medicine and Dentistry, Department of Public Health Sciences). I am conducting this research project as part of my requirements, under the supervision of Dr. Cam Wild and Dr. Douglas Wilson. This letter and the enclosed consent form provide details about the research project entitled, "Development of a Community-Based HIV/AIDS Prevention/Promotion program for At-risk Urban Aboriginal Youth."

The purpose of this study is to determine what methods will be most effective to develop HIV/AIDS prevention/promotion programs. This project is of great importance in order develop programming that will help reduce the rate of HIV transmission among Aboriginal youth.

This study will take approximately 30 minutes of your time. This includes:

(a) Reading and keeping this cover letter;

(b) Reading and keeping the consent form;

(c) Completing the questionnaire;

(d) Returning the completed questionnaire to the representative of the participating organization.

Your participation is completely voluntary and anonymous. However, you may provide your name and address if you are interested in further participating in the research project. This involves participating in a one-hour interview. Thank you for your interest, time, and consideration in participating in this research project.

Sincerely,

Sonia Isaac-Mann

Department of Public Health Sciences

13-103 Clinical Sciences Building • University of Alberta • Edmonton • Canada • T6G 2G3
Fax: (780) 492-0364 • http://www.med.ualberta.ca/phs/

UNIVERSITY OF ALBERTA

HIV EDMONTON

Questionnaire Participant
Information Letter

PROJECT TITLE: Development of a Community-Based HIV/AIDS Prevention/Promotion Program for At-risk Urban Aboriginal Youth.

INVESTIGATORS:

Sonia Isaac-Mann, B.Sc.
Master of Science Candidate
Faculty of Medicine and Dentistry
Department of Public Health Sciences
University of Alberta
(780) 492-5677
sti@ualberta.ca

Erin Kardolus
HIV Edmonton
#600, 10242-105th Street
Edmonton, Alberta
T5J 3L5
(780) 488-5742
youth@hivedmonton.com

PURPOSE: This study is being done to find out what kind of HIV/AIDS prevention programs is most effective for Aboriginal Urban Youth.

INFORMATION: We are working to develop HIV/AIDS prevention programs for Urban Aboriginal youth in the city of Edmonton. We will be asking you about what should be included. We will also ask about risk-taking behaviours to better understand your situation.

Your name will be kept confidential. Your participation is anonymous and voluntary. All information will be kept confidential, except when a professional code of ethics or the law requires reporting. All data will be kept for at least five years after the study. This data will be kept in a secure area only to be used by the research team. The information from this study may be used in the future to answer other study questions. If so, the ethics board will review the study to make sure it's ethical.

PROCEDURE:

- Read the Information sheet.
- You may refuse to answer any question.
- Complete the questionnaire. It will take about 30 minutes.
- Place it in the questionnaire envelope and return it to the appropriate research representative or put it in the drop off box.
- You may view a summary of the research project by contacting the researchers.

- Fill out the last page of the questionnaire if you want to be interviewed. Please see page 8. Please note that only 10 randomly chosen youth will be interviewed.

RISKS AND BENEFITS: The benefits of this research include enabling HIV Edmonton to develop HIV/AIDS prevention programs that are specific to Aboriginal youth. This will ensure that the needs of Aboriginal youth are met. Such research also provides valuable information to other organizations working to develop similar programs. There is no risk expected with participating in this research. However, if you feel that you need to speak with someone following participation this will be arranged for you (for example, if you feel upset following your participation).

CONSENT: Returning the questionnaire shows that you have understood the purpose of the study and agree to participate. If you have any questions about this research please contact the researchers.

This consent form is yours to keep.

We appreciate your time.

If you have any concerns about the way the study was done call Dr. Cam Wild at 492-9414 or Dr. Nicola Cherry, Department Chair at 492-6682.

UNIVERSITY OF ALBERTA

HIV EDMONTON

Questionnaire

1. Age: ____ years old 2. Gender: ❒ male ❒ female

3. Please describe your Aboriginal Ancestry and/or tribal affiliation: _____

_____

4. What reservation or city are you from originally? _____

5. How often, if at all, do you travel back and forth to visit reservation communities?

_____

6. (a)In which part of the city do you currently live? ❒ Downtown ❒ South Side ❒ West End ❒ East End ❒ North Side ❒ Other: _____

(b) What is your current living situation (i.e., apt., house, shelter, etc...)?_____

7. Are you: ❒ Straight ❒ Gay ❒ Lesbian ❒ Bisexual ❒ Two - Spirited ❒ Not sure

8. Have you ever heard of HIV/AIDS? ❒ Yes ❒ No

9. Where do you get your information about HIV/AIDS?

- ❒ Television
- ❒ Community Newspapers
- ❒ Radio
- ❒ Brochures/flyers/pamphlets
- ❒ Counselor/social worker
- ❒ Internet
- ❒ City Newspapers
- ❒ Magazines
- ❒ Relatives and Friends
- ❒ Doctor or clinic
- ❒ Teacher
- ❒ Other

10. For the following items check the one answer that best matches what you know about HIV/AIDS.

AIDS is a disease caused by a virus.

❒ Yes ❒ No ❒ Don't Know

You can tell if a person has HIV or AIDS by looking at them.

❒ Yes ❒ No ❒ Don't Know

A pregnant woman with HIV or AIDS can give it to her baby.
❒ Yes ❒ No ❒ Don't Know

There is a vaccine available to protect a person from getting HIV.
❒ Yes ❒ No ❒ Don't Know

There is no cure for AIDS at the present time
❒ Yes ❒ No ❒ Don't Know

Aboriginal people do not get HIV or AIDS.
❒ Yes ❒ No ❒ Don't Know

Only gay men and drug users get HIV or AIDS.
❒ Yes ❒ No ❒ Don't Know

You can get HIV by sitting on a toilet seat with a paper cover.
❒ Yes ❒ No ❒ Don't Know

You can get HIV by kissing someone.
❒ Yes ❒ No ❒ Don't Know

You can get HIV by sharing a needle with someone who has HIV.
❒ Yes ❒ No ❒ Don't Know

You can get HIV by having sex with an HIV positive female, without a condom.
❒ Yes ❒ No ❒ Don't Know

You can get HIV by having sex with an HIV positive male, without a condom.
❒ Yes ❒ No ❒ Don't Know

You can get HIV by giving an HIV positive male oral sex (a blowjob) without using a condom.
❒ Yes ❒ No ❒ Don't Know

You can get HIV by giving an HIV positive female oral sex without using a protective barrier.
❒ Yes ❒ No ❒ Don't Know

11. This is a list of sexual activities. Check 'yes' if you have done these things, or 'no' if you haven't. Then identify whether you use a condom 'sometimes', 'always', or 'never.'

Given a male a blowjob ❒ Yes ❒ No

Gone down on a female ❒ Yes ❒ No

Gone down on a female during her period ❒ Yes ❒ No

Received anal sex ❒ Yes ❒ No

Given someone anal sex ❒ Yes ❒ No

Had vaginal sex ❒ Yes ❒ No

Given a male a hand job ❒ Yes ❒ No

12. Have you ever had a tattoo? ❒ Yes ❒ No
Did you ever share a needle for a tattoo? ❒ Yes ❒ No ❒ Not sure

13. Have you ever had a body piercing? ❒ Yes ❒ No
Did you ever share a needle for a piercing? ❒ Yes ❒ No ❒ Not sure

14. Have you ever done steroids? ❒ Yes ❒ No
Did you ever share a needle/rig for steroids? ❒ Yes ❒ No ❒ Not sure

15. Have you ever done injection drugs (like heroin)? ❒ Yes ❒ No
Did you ever share a needle/rig for drugs? ❒ Yes ❒ No ❒ Not sure

16. How many people have you had sexual intercourse with?
❒ 0 ❒ 1 ❒ 2-5 ❒ 6-10 ❒ 10-25 ❒ 25-50 ❒ more than 50

17. Have you ever gone for an "HIV test" ? ❒ Yes ❒ No

18. Are you: ❒ HIV negative ❒ HIV positive ❒ don't know ❒ don't want to say

19. Have you ever had sex for money, drugs, or a place to stay? ❒ Yes ❒ No

20. If you have had sex without condoms (or oral sex on a woman without a protective barrier), are the following reasons that you did not use them?

I had none with me ❒ Yes ❒ No
I don't care if I get HIV ❒ Yes ❒ No
Condoms are too expensive ❒ Yes ❒ No
Buying condoms is embarrassing ❒ Yes ❒ No
I was afraid to talk to my partner about condoms ❒ Yes ❒ No
I'm not at risk for HIV ❒ Yes ❒ No
I wanted to get pregnant ❒ Yes ❒ No
I was embarrassed to talk to my partner about condoms ❒ Yes ❒ No
Condoms don't feel good ❒ Yes ❒ No
I'm straight so I'm safe ❒ Yes ❒ No
My partner did not want to ❒ Yes ❒ No
People like me don't get HIV ❒ Yes ❒ No
I'm not sure how to use condoms ❒ Yes ❒ No
I'm male, so it doesn't affect me ❒ Yes ❒ No

I was drunk/stoned/high and didn't think about it ❒ Yes ❒ No

I was on The Pill, or my partner was on The Pill ❒ Yes ❒ No

I'm female, so it doesn't affect me ❒ Yes ❒ No

Other (please write reasons): _____

Questions 21-31 specifically address HIV Risk Taking Behaviours

Drug Use

21. How many times have you hit up (injected any drugs) in the last month?

❒	Haven't hit up (if checked moved to question #27)	0
❒	Once a week or less	1
❒	More than once a week (but less than once a day)	2
❒	Once a day	3
❒	2-3 times a day	4
❒	More than 3 times a day	5

22. How many times in the last month have you used a needle after someone else had already used it?

❒	no times	0
❒	one time	1
❒	two times	2
❒	3-5 times	3
❒	6-10 times	4
❒	more than 10 times	5

23. How many different people have used a needle before you in the last month?

❒	none	0
❒	one person	1
❒	two people	2
❒	3-5 people	3
❒	6-10 people	4
❒	more than 10 people	5

24. How many times in the last month has someone used a needle after you used it?

❒	no times	0
❒	one time	1
❒	two times	2
❒	3-5 times	3
❒	6-10 times	4
❒	more than 10 times	5

25. How often, in the last month, have you cleaned needles before re-using them?

❒ do not re-use	0
❒ every time	1
❒ often	2
❒ sometimes	3
❒ rarely	4
❒ never	5

26. Before using needles again, how often in the last month did you use bleach to clean them?

❒ do not re-use	0
❒ every time	1
❒ often	2
❒ sometimes	3
❒ rarely	4
❒ never	5

Sexual Behaviour

27. How many people, including clients Johns), have you had sex with in the last month?

❒ none (if checked move to question # 33)	0
❒ one person	1
❒ two people	2
❒ 3-5 people	3
❒ 6-10 people	4
❒ more than 10 people	5

28. How often have you used condoms when having sex with your regular partner(s) in the last month?

❒ no vaginal or anal sex	0
❒ every time	1
❒ often	2
❒ sometimes	3
❒ rarely	4
❒ never	5

29. How often have you used condoms when you had sex with casual partners?

❒ no vaginal or anal sex	0
❒ every time	1
❒ often	2
❒ sometimes	3
❒ rarely	4
❒ never	5

30. How often have you used condoms when you had sex for money, drugs, or a place to stay in the last month?

❒ no vaginal or anal sex	0
❒ every time	1
❒ often	2
❒ sometimes	3
❒ rarely	4
❒ never	5

31. How many times did you have vaginal sex in the last month?

❒ no times	0
❒ one time	1
❒ two times	2
❒ 3-5 times	3
❒ 6-10 times	4
❒ more than 10 times	5

32. How many times did you have anal sex in the last month?

❒ no times	0
❒ one time	1
❒ two times	2
❒ 3-5 times	3
❒ 6-10 times	4
❒ more than 10 times	5

33. What Youth or Aboriginal services/programs do you currently use?_____

_____

_____

34. What kinds of messages or images should be on a poster to interest you so you read it?_____

_____

_____

35. What kinds of programs would you like to see created that target you and your friends (regarding HIV/AIDS)?_____

_____

_____

36. How would these programs work (who should run them, where should they be, what should they include)?

_____

_____

_____

37. What kinds of things are you interested in participating in/volunteering for at HIV Edmonton (a program you want to create, hand out condoms, be a peer educator, fundraising, make posters, create a web page, etc…)?

_____

_____

_____

Thank you for participating

If you would like to participate in an interview session please fill out the following:

Name:_____ Age:_____years old

Address:_____ Gender: ❒ male ❒ female

_____

_____

Phone number: _____

or

Organization Contact Person:_____

NOTE: not everyone will be interviewed. Only 10 randomly chosen Youth will be selected to participate in an interview. We will try to include an equal number of males and females. This will depend on how much interest there is in an interview. If you are chosen for an interview, you will receive $20.00, two bus tickets, and snacks during the interview. The interview will be tape recorded to ensure accuracy of data. The interview will take about one hour.

Place this form in the envelope marked interview and return it with the sealed questionnaire envelope.

Appendix 8: Interview Package

- Information Sheet
- Consent Form
- Guiding Interview Questions

UNIVERSITY OF ALBERTA

HIV EDMONTON

Interview Participant
Information Sheet

PROJECT TITLE: Development of a Community-Based HIV/AIDS Prevention/ Promotion Program for At-risk Urban Aboriginal Youth.

INVESTIGATORS:

Sonia Isaac-Mann, B.Sc.
Master of Science Candidate
Faculty of Medicine and Dentistry
Department of Public Health Sciences
University of Alberta
(780) 492-5677
sti@ualberta.ca

Erin Kardolus
HIV Edmonton
#600, 10242-105th Street
Edmonton, Alberta
T5J 3L5
(780) 488-5742
youth@hivedmonton.com

We are working to develop HIV/AIDS prevention programs for Urban Aboriginal youth in the city of Edmonton. We will be asking you about what should be included. We will also ask about risk-taking behaviours to better understand your situation.

The interview will last about an hour and at the end of that time you will have a chance to talk about any concerns you might have and to ask questions.

Your name will be kept confidential. No names will be used in presentations, publications or transcripts. You may refuse to answer any question and you may stop the interview at any time. The interview will be tape recorded to ensure accuracy of the data.

All information will be kept confidential, except when a professional code of ethics or the law requires reporting. All data will be kept for at least five years after the study. This data will be kept in a secure area only to be used by the research team (University researcher and HIV Edmonton). The information from this study may be used in the future to answer other study questions. If so, the ethics board will review the study to make sure it's ethical.

We appreciate your time and open and honest answers to the questions. If you choose to participate in the interview you will receive $20 in cash, 2 ETS tickets and snacks during the interview.

If you have any concerns about the way the study is conducted, you can call Dr. Cam Wild 492-9414 or Department Chair at 492-6682.

UNIVERSITY OF ALBERTA

HIV EDMONTON

Interview Participant Consent Form

Part 1: Researcher Information		
Name of Principal Investigator: Affiliation: Contact Information:		
Name of Co-Investigator/Supervisor: Affiliation: Contact Information:		
Part 2: Consent of Subject		
	Yes	**No**
Do you understand that you have been asked to be in a research study?		
Have you read and received a copy of the attached information sheet?		
Do you understand the benefits and risks involved in taking part in this research study?		
Have you had an opportunity to ask questions and discuss the study?		
Do you understand that you are free to refuse to participate or withdraw from the study at any time? You do not have to give a reason and it will not affect your care.		
Has the issue of confidentiality been explained to you? Do you understand who will have access to your records/information?		
Part 3: Signatures		
This study was explained to me by: _____ Date: _____ –		
I agree to take part in this study. Signature of Research Participant: _____ Printed Name: _____		

Witness (if available): _____ Printed Name: _____
I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate. Researcher: _____ Printed Name: _____
* A copy of this consent form must be given to the subject.

Department of Public Health Sciences
13-103 Clinical Sciences Building • University of Alberta • Edmonton • Canada • T6G 2G3
Fax: (780) 492-0364 • http://www.med.ualberta.ca/phs/

UNIVERSITY OF ALBERTA

HIV EDMONTON

Guiding Questions for Interview

1. What is your current living situation? {Based on answer, discuss homelessness, survival techniques).

2. What youth and/or Aboriginal programs/services do you use and why? What is good about them? Would you change anything about them?

3. What kinds of programs would you like to see created to target you and your friends?

4. What factors affect your life that make you participate in risky behaviour?

5. Do you feel that you are at increased risk of HIV transmission or are you not concerned about it?

6. Based on your experiences, do you think that HIV/AIDS is a concern for urban Aboriginal youth?

7. Is culture a factor in your life? Does it affect the choices that you make?

8. Should culture play a role in the development of an HIV/AIDS prevention program for Aboriginal youth? How do think it can be used? Do you think that culture has to be a part of the program?

9. What issues are important to you when you think about HIV/AIDS prevention?

10. What do you think can be done to reduce the risk of HIV transmission for Aboriginal youth who engage in risky behaviours such as IDU, sex trade work, MSM, and unprotected sex?

11. Do you think that HIV/AIDS affects Aboriginal youth more or less than the rest of the Canadian population? Or do you think it is not a concern for Aboriginal peoples?

12. Would it be helpful for you to have access to Aboriginal healers, Elders and spiritual leaders when trying to make healthy life choices?

13. Do you think that alcohol use and drug use contribute to making poor choices? Why?

14. How should these programs work (who should run them, where should they be, what should they include)? What would you like to see in an HIV/AIDS prevention program?

15. Do you think that you would want to be involved with an HIV/AIDS prevention program targeting Aboriginal youth or would you rather not get involved? Why?

16. What kinds of groups {help with giving examples such as teachers, peers, elders, etc…} do you think should be involved in HIV/AIDS prevention programs?

17. Who do you talk to when you have questions about HIV/AIDS?

18. Who would you feel more comfortable talking to about HIV/AIDS, someone your own age, someone close to your age, or someone older?

Appendix 9: Information from Open-ended Questions from the Survey

Question: What youth or Aboriginal services/programs do you currently use?

Responses included:

Metis Association
dancing classes
art classes
tribal council at school
round dance committee at school
junior achievement
Aboriginal Learning Centre
Sun and Moon Visionaries
Children's Advocate
Tikinagan Social Family Services
Young Warriors Club
Poundmakers
Bent Arrow (Wind Dancers)
Boyle Street Co-op
Partners for Youth Edmonton
Native Healing Centre
Edmonton Native Friendship Centre
Birth Control clinic
Aboriginal Youth Network
Terra Association

Question: What kinds of messages or images should be on a poster to interest you so you read it?

Responses included:

a kid tied up with tubes
statistics
pretty girls that could potentially be dangerous
cartoons
can't tell by looking at someone if they have HIV/AIDS
someone who has it
posters that have an activity involved like a dance
condoms
Native people positive attitudes/messages for youth
bright colours like RED
true stories/real life
sports
death/coffins/AIDS Kills/the morgue
awareness
good looking people

pictures
slogans like "put a teepee on your peepee" or
religion
"HIV is easy to get when you are thinking more
slang
about sex and not about the disease" or "cover
famous people
me I'm going in"
risks for getting HIV
a baby being born with HIV saying 'please use protection'
quick and easy to read
know when you're ready to have sex
pregnancy
show a web from the person you had sex with then who
they had sex with and so on showing how fast it can spread.

Question: What kinds of programs would you like to see created that target you & your friends?

Responses included:

target Jr. High schools before they start having sex
a prevention plan in school
make it more mandatory in schools
give out free condoms
help adults talk to their children about it
encourage safe sex
program with friends so they can be more open
talk about HIV openly
conferences/seminars/ workshops/presentations
have prizes
fun activities that are educational games/sports/trips/videos
awareness campaigns
what happens to you when you re-use a needle
information/booklets
youth and adult programs together
speakers that have HIV/AIDS/Native people with HIV/AIDS
give away money
cultural components
community events like pow wows and round dances
drama group
peer support programs
cartoons
safe places to hang out
talking circles
reality programs that show what is happening with street

involved youth in gangs and prostitution.

Question: How would these programs work (who should run them, where should they be run, what should they include)?

Responses included:

help people to understand better
people close to us
someone who has experience with HIV or living positive
family members
programs should be in residential communities and
risks
people who know about HIV should be teaching
parents involved
a gathering for youth working on giving more information
teachers and cousellors
everyone should be able to access programs
school/students should run
programs at the HIV centre
have HIV spokesperson
government should be involved
nurses
should be able to talk about condoms and how you get HIV/AIDS
fun activities/games/prizes
good medicine
there should be a lot of detail about it, conferences/workshops/talking circles
should include funding
should have 24hr services
aboriginal people and people our age
elders
real life stories like what happens to youth before and after life on the streets with drugs and that you are risking your life to all the diseases out there
youth counsellors
prevention information
should be everywhere
urban areas run by aboriginal youth
must have trust
information (pamphlets, posters, and books)
open and confidential

Question: What kinds of things are you interested in participating in/volunteering for at HIV Edmonton?

Responses included:

seminars
peer educator
creating a web page fundraising
making posters
handing out condoms
creating ideas for advertising
working with little kids
help out with problems
create a good program for people
off and on the streets
helping in school

Appendix 10: Curriculum Vitae

2909-31 STREET • EDMONTON, ALBERTA • T6T 1T9
PHONE (780) 433-7955 • FAX (780) 492-1674 • E-MAIL FOX2772@HOTMAIL.COM

SONIA ISAAC-MANN

EDUCATION

1999 - 2004 University of Alberta Edmonton, AB
Master of Science: Public Health Sciences (Population Health)

- Development of an HIV/AIDS Prevention/Promotion Program for Urban Aboriginal Youth in the City of Edmonton, Alberta.

1996 - 1999 University of Alberta Edmonton, AB
Bachelor of Science Specialization: Physiology and Developmental Biology

1995 - 1996 Mount Allison University Sackville, NB
Biology, Sociology, Anthropology and Psychology

1991 - 1995 Bishop's University Lennoxville, Qc
Bachelor of Science: Biology

1990 Stuart High School Whyalla, Australia
Foreign Exchange Student

1987 - 1991 Harrison Trimble High School Moncton, NB
College Preparatory Program

- Graduated honours June 1991

SCHOLARSHIPS, BURSARIES AND AWARDS

1991 Entrance Scholarship Bishop's University

1991 CN Scholarship

1998 U of A SAGWA Award

2001 Health Canada – Aboriginal Capacity-Building Program for Community-Based Research Scholarship

COMMITTEE AND GROUP INVOLVEMENT

January 2004 Treaty Six Science Fair Judge

Sept '03 - '04 AISES – Univ. of Alberta Chapter Advisor

Mar '03 - '04 NASSA – CACCUS Member U of A

July '00 - Nov '00 AB Children's Mental Health Steering Committee

July '00 - Nov '00 AB Aboriginal Mental Health Wisdom Committee

Jan '00 - June '00 Univ. of Alberta Aboriginal Advisory Council

1999 - 2000 Public Health Sciences Executive Student Council

1997 - 1999 HUB International Residence Student Council

1993 - 1994 Bishop's University Biology Student Association President

LANGUAGES

French and English: Spoken, read and written.

WORK EXPERIENCE

March 2003 – Present Faculty of Nursing Edmonton, AB
University of Alberta

Research Coordinator – The Diagnosis and Care of HIV Testing Among Canadian Aboriginal Youth

- Organize advisory committee meetings with pertinent community members in the area of HIV as well research team meetings.
- Monitor and collect questionnaires in Western Canada, input and analyze data, conduct in-depth interviews, prepare thematic framework from interview transcripts, prepare manuscripts, ensure ethical codes are followed, promote healthy choices for youth.
- Perform Administration duties such as proposal development and operational planning, report writing, team meetings, budget management and development, payroll, facilitate meetings.
- Write final research document for journals and CIHR.

Jan 2001 – Present Native Student Services Edmonton, AB
University of Alberta

Wapahtihew Program Coordinator

- Coordinate/manage tutors and role models to help Aboriginal high school students at the Amiskwaciy Academy as well as various elementary and junior high schools within the city of Edmonton.
- Perform Administration duties such as proposal development and operational planning, report writing, council meetings, budget management and development, payroll, conduct employee evaluations, facilitate staff meetings, as well as network meetings with schools and organizations within the City of Edmonton.
- Work with Community Relations team to develop and implement new programs and services for Aboriginal students.

July 2000 – Nov 2000 Alberta Mental Health Board Edmonton, AB
Aboriginal Community Developer: Children's Mental Health

- Provided cultural perspective and expertise to the Children's Mental Health team in the development of mental health services for Aboriginal children.
- Worked with the Aboriginal Adult Mental Health Coordinator to develop a Wisdom Committee for consultation on issues and concerns relating to mental health services for Aboriginal peoples.
- Held meetings with Aboriginal Communities to determine mental health needs of families with an emphasis on children.

Jan 2000 – June 2000 Native Student Services Edmonton, AB
University of Alberta
SAGE Program Coordinator (Student Ambassadors Guiding Education)

- Coordinated/managed ambassadors and facilitated seminars, workshops, presentations, career fairs and display booths to recruit Aboriginal students to attend the University of Alberta.
- Promoted Aboriginal programs and services available at the University of Alberta.
- Performed administrative duties such as payroll, council meetings, budget management and development, report writing, conducted employee evaluations, facilitated staff meetings and held Retention Services team meetings with other coordinators.

May 1999 – Aug 1999 Department of Public Health Edmonton, AB
Sciences, University of Alberta
Research Assistant

- Organized and analyzed data collected in Guyana concerning the sexual relationships of youth.

April 1997 – April 1999 Housing and Food Services Edmonton, AB
University of Alberta
HUB Residence Assistant

- Provided orientation for new residents, initiated and implemented programming activities, provided conflict resolution and crisis intervention, coordinated and scheduled volunteers, fulfilled on-call duty, and served as the peer health education liaison.

May 1998 – Aug 1998 Aboriginal Wellness Program Edmonton, AB
Capital Health Authority
Aboriginal Family Support Worker

- Assisted Aboriginal mothers in obtaining clothing and furniture for their babies. Helped to find adequate housing for mothers in need of a place to live. Aided mothers to obtain required support services. Conducted one-on-one meetings with mothers to determine their individual needs. Set-up a workshop to determine the effectiveness of the program.

May 1997 – Aug 1997 Pulmonary and Mucobiology, University of Alberta — Edmonton, AB

Laboratory Research Assistant

- Conducted experiments on canine and amphibian specimens. Utilized laboratory techniques in bronchoscopy, intravenous procedures, blood pressure, etc…

May 1996 – Aug 1996 Listuguj Medical Centre — Listuguj, Qc

Community Health Educator

- Major project was to educate the Aboriginal Community on the existence of HIV/AIDS, the risks associated with HIV/AIDS and to provide prevention strategies.
- The XI International Conference on AIDS (Vancouver 1996) was the primary source of information. Based on knowledge obtained at this conference and relevant literature, an Aboriginal AIDS Awareness Day was held.

May 1995 – Aug 1995 Listuguj Medical Centre — Listuguj, Qc

Community Health Nurses Assistant

- Gathered information on various health related issues such as HIV/AIDS, Cancer, Diabetes, Pre-natal care, baby care, Post-natal care, Sexually Transmitted Diseases, Sex Education, Nutrition, alcoholism, drug addiction, and solvent abuse. Developed a resource library based on the information gathered.
- Assisted with immunization clinics, baby clinics, health supply dispersion, home visits and administration.

May 1994 – Aug 1994 Campbellton Regional Hospital — Campbellton, NB

Laboratory Assistant

- Performed semi-skilled laboratory and administrative procedures to assist technologists in the delivery of laboratory services.

Sep 1993 – Dec 1993 Bishop's University — Lennoxville, Qc

Laboratory Assistant

- Prepared solutions and materials for first and second year Biology courses.

May 1993 – Aug 1993 Blue Cross of Atlantic Canada — Moncton, NB

Health Claims Clerk

- Pilot program to determine the effectiveness of clerks working on an individual basis. Duties entailed typing claims into a computer in order for the company to make payouts.

May 1992 – Aug 1992 Blue Cross of Atlantic Canada — Moncton, NB

Senior's Health Program Consultant

- Gave seminars, speeches and presentations to seniors to explain

the new Health Programs. Held open office hours for walk-in consultations.

July 1991 – Aug 1991 Listuguj Cultural Museum Listuguj, Qc

Mi'gMaq Tour Guide

- Gave tours explaining the history and culture of the Listuguj Mi'gMaq First Nations People.

REFERENCES

Available upon request.